

# American Artisan and Hardware Record

Sheet Metal - Roofing - Warm Air Furnaces - Stoves

Vol. 93, No. 11

CHICAGO, MARCH 12, 1927

\$2.00 Per Year

## Read Why E. Van Noorden Company Recommends HORSE HEAD ZINC FOR GENERAL ROOFING AND FLASHING WORK

*They know  
Horse Head Zinc is*

PLIABLE  
EASY TO SEAM  
NON-CRACKING  
ENTIRELY  
SATISFACTORY



Stamford, Connecticut, Hospital on which the E. Van Noorden Company of Boston installed 190 squares of Horse Head Zinc Roofing.

**The New Jersey Zinc Company**  
160 Front Street - New York City



**Vanco Products**  
Anchor Bolt Ventilators  
Steam Pipe Ventilators  
Vanco Drip Buckets  
Box's Patent Steel Straps

**E. Van Noorden Company**

ESTABLISHED 1873.

WM. S. KISPER, Pres.  
E. VAN NOORDEN, Treas. CARL L. MITCHELL, Vice Pres.  
100 MAGAZINE ST.

TELEPHONE  
HIGHLAND

BOSTON, MASS.

VENTILATORS  
METAL WINDOWS  
ARCHITECTURAL  
COPPER WORK  
GENERAL SHEET  
METAL WORK  
PAINTING DOORS  
PARTITIONS AND  
STONE FRONTS

New Jersey Zinc Company  
160 Front St.  
New York N. Y.

Gentlemen:

Replied to your inquiry we are much impressed with the working and wearing qualities of Horse Head Zinc for roofing, flashing, etc. It is pliable and easy to seam and in our long experience is the only kind of zinc that has not cracked in forming or through expansion and contraction.

We completed an installation in November 1924 for the Branch River Wool Company at North Smithfield, Rhode Island, Lockwood, Greene & Co. Engineers, using considerable of your material for eave cleats, sawtooth heads and sheathing.

We also installed approximately 190 squares of Horse Head zinc roofing on the Stamford Hospital Buildings, George B. Post & Sons, Architects. This work was completed in October 1925.

Both of these installations have proven entirely satisfactory to date and we are glad to recommend Horse Head zinc for general roofing and flashing work.

Yours truly

E. Van Noorden Company

Vice Pres.

**THE NEW JERSEY ZINC COMPANY**  
160 Front Street - New York City

Please send me a sample of Horse Head Zinc and full information on its use for roofing.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

3-A.

# quality *warm air heating—*

**YOU** know that warm air heating is on a higher plane today than ever before—

You know that more furnaces are sold today than ever before—

You know that the various movements by the industry as a whole are doing wonders to put warm air heating on a still higher basis—

You know that in general today better installation work and better profits are the rule and that they will continue to get better—

You know also that more and more *steel furnaces* are on the market than ever before—

From that you know that the public wants *steel furnaces*—

Remember that the Weir is the *highest quality steel furnace on the market—that it is in its 45th year and sold only on a high quality basis.*

You can't go wrong by advocating quality warm air heating—with the **WEIR**.

# Weir



# Steel Furnace

**The MEYER FURNACE Co**  
Peoria, Illinois

# The Super-Smokeless Has No Competition!

The SUPER-SMOKELESS Furnace is the only really smokeless furnace on the market. It brings satisfied customers and earns big profits.



VIEW OF CASTINGS OF THE  
SUPER-SMOKELESS FURNACE

THE SUPER-SMOKELESS Furnace is without doubt the best furnace from the home owner's point of view. The Dealer who sells them places himself in a class apart—actually above competition. One installation leads to others, and enables the Dealer to build his business and increase his profits.

The SUPER-SMOKELESS Furnace will burn soft coal without smoke, utilizing the smoke and gases as valuable fuel. It will also burn hard coal with the highest efficiency and fuel economy. Actual tests and thousands of installations have proved conclusively the fuel saving qualities of this remarkable furnace, both with soft coal and hard coal.

The SUPER-SMOKELESS Furnace is distinctly a "feature" furnace. It possesses such modern scientific features as: One-Piece Radiator and Feed Section; Frameless Feed and Ashpit Doors; Scientifically-proportioned Feed Section; Direct-connected Cleanout; Large Convenient Air Moistener; and patented "Slip-on" Casing Connections.

The Utica Heater Company has manufactured high grade heating equipment for forty-seven years. We stand behind our dealers and help them sell the furnaces they buy. We do not sell or install direct, and do not intend to. It will pay you to write for our Exclusive Dealer Proposition. DON'T DELAY—WRITE TODAY.

## UTICA HEATER COMPANY

UTICA, N. Y. — CHICAGO, ILL. — MANUFACTURERS OF THE

CELEBRATED LINE OF WARM AIR FURNACES FOR EVERY HEATING NEED



SUPERIOR PIPE

NEW IDEA PIPELESS

SUPER-SMOKELESS PIPE AND PIPELESS

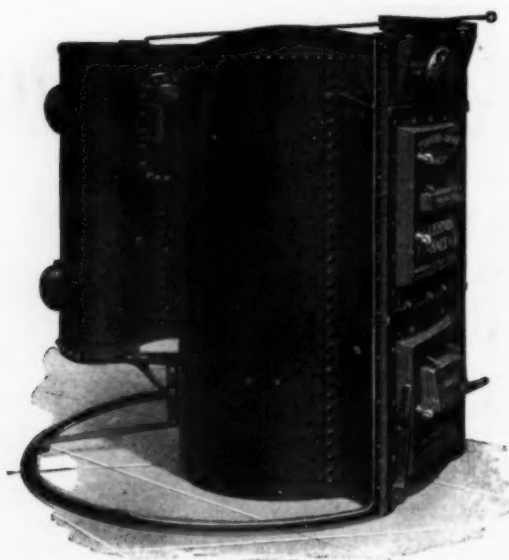
ESSEX PIPE

ESSEX PIPELESS

NEW IDEA RECIRCULATOR

Published Weekly by American Artisan and Hardware Record, Inc., 620 South Michigan Avenue, Chicago, Illinois.  
Entered as Second Class Matter June 25, 1887, at the Post Office at Chicago, Illinois, under act of March 3, 1879.





## Steel—the metal you know best is the best for furnaces, too

**N**O doubt about steel—more steel furnaces on the market this year than last—the demand is steadily growing and you know why.

Steel is gaining favor because the public is learning more about warm air furnace heating—the people are getting to know something about *what goes inside the casing*.

And when they investigate that point they readily see why steel, the metal they know best, is the best for furnaces, too.

Eventually you will sell steel furnaces.

Eventually, you will want to sell the steel furnace that best serves the public.

Here are a few points about the Torrid Zone Furnace:

A strictly high quality furnace with over 30 years of furnace manufacturing experience behind it—made by the World's Largest Makers of Steel Furnaces;

A furnace made of the heaviest steel used in furnace manufacture;

A furnace that is original in design with exclusive patented features;

A furnace that is made in 59 Styles and Sizes—the most complete range of sizes;

A furnace so good that it is guaranteed for 10 years;

A furnace that sells at a good profit.

**W**E want you to know the complete Torrid Zone story—we want you to know the details of the agency proposition that is making and building good business for hundreds of Torrid Zone dealers. Write today.

**The Lennox Furnace Company**  
Marshalltown, Iowa      Syracuse, New York

# Lennox

## Torrid Zone Furnace

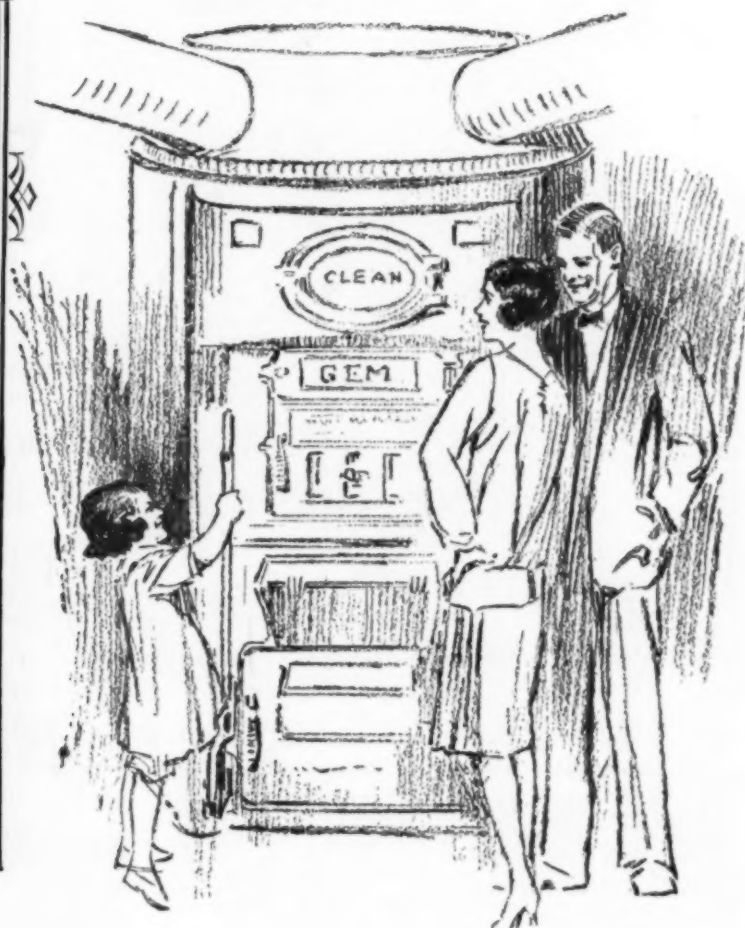
Mention AMERICAN ARTISAN in your reply—Thank you!



# A Child Can Operate It

The Robinson  
"Gem" Lever  
Shaker makes  
sales easier —

Easy operation is a convincing point when talking to the customer. The woman of the house is vitally interested. Tell her that a child can operate the "Gem" lever shaker. She can readily appreciate that point. It's just as easy as operating the vacuum cleaner or the gear shift on an auto.



This is but one of the many superior, outstanding features of the Robinson "Gem." It also has a one-piece radiator, two-piece firepot, double feed doors, full cast front, etc. Every "Gem" is guaranteed full size. The fact is, through and through, the "Gem" is oversize.

That isn't all. This quality furnace is still in the competitive field. For the dealer who sells only a few or hundreds of furnaces a year, the "Gem" fills the bill.

Write for particulars of our dealer's proposition.



*The* **Robinson** *Gem*  
Robinson Furnace Co.  
205 West Lake St., Chicago, Ill.

# WISE

BACKED BY OVER TWENTY-FIVE YEARS' EXPERIENCE IN MAKING GOOD FURNACES



## Quality+Design

WISE furnaces build business because their quality is such that their users can't help bragging about it.

The finest grade of iron plus careful and experienced workmanship guarantee uniform high quality in WISE furnaces.

WISE furnaces are designed for the most efficient as well as the most economical heating results.

We would be pleased to go into the details of the WISE dealer proposition with you and explain why WISE dealers have been making exceptional profits for over twenty-five years.

Write for WISE catalog and dealer sales plans today.

*The WISE trade-mark is known as the symbol of high quality wherever furnaces are talked about.*



The WISE FURNACE CO.  
AKRON, OHIO

# FURNACES



## A Winning Hand

*Moncrief Dealers play to win with the combination offered in our New Series "C"*

**Ace:** One piece Radiator, with smoke and clean-out collars cast solid with it.

**King:** Joints inside the casing reduced to a minimum by extending sections clear through the front.

**Queen:** Feed Section with sloping top extending through the front where door is attached direct without frame.

**Jack:** Seamless Ash Pit with the Four Bar and the Flat Dump Grates interchangeable; either may be removed without tools and replaced within two minutes.

**Ten:** Ten other features that make this Series "C" the leading furnace for 1927 and for many years to come.

### Get Into the Furnace Game Right

Furnace men who sell the new Series "C" are making more money with easier selling and easier installing than ever before. This new furnace appeals to everybody and any dealer who sells it is in line for increasing success.

### Write for Literature

The HENRY FURNACE & FOUNDRY CO.  
3471 E. 49th St. Cleveland, Ohio



The New  
Series "C"  
**MONCRIEF  
FURNACES**

# BOOMER

**T**HIS is our latest addition to the Boomer line. We heartily recommend it for your favorable consideration.

The severe tests we have given this furnace have proven its durability. The unsolicited reports we received from users last winter have been most flattering.

For durability, economy, easy to operate, easy to set up and the low price at which we offer this furnace, you will make no mistake in arranging for the agency.

**THE HESS-SNYDER CO.**  
MASSILLON, OHIO

Makers of BOOMER FURNACES for Forty-Three Years



# PROGRESS

IN WARM AIR HEATING MEANS  
INSTALLING BY THE STANDARD CODE  
AND USING

**ARMSTRONG**  
GUARANTEED

COLD RIVETED and WELDED  
FURNACES

TO BACK UP YOUR PROMISES OF HEAT!

WE OFFER DISTINCTIVE 1927 IMPROVEMENTS  
AND AN INTERESTING PROPOSITION  
TO LIVE DEALERS

WRITE US TODAY and "Feather Your Nest"

THE THOMAS & ARMSTRONG CO.,  
Dept. 501, London, Ohio

Please send me at once the Armstrong Furnace Catalog and full details of your dealer proposition.

Name .....

Address .....

**THOMAS & ARMSTRONG CO.**  
Dept. 501 — LONDON, OHIO

The ORIGINAL COLD RIVETED and WELDED FURNACE  
POSITIVELY GAS AND SMOKE TIGHT



## OUR NEW FURNACE

Made of

TONCAN COPPER MO-LYB-DEN-UM IRON

Built in Accordance With the New Rating Formula—Twenty-two and One-Half Inches of Radiating Surface to Every Square Inch of Grate Area.

UNIT CIRCULAR GRATE—ONE PIECE  
PATENT DUMPING DEVICE  
ELECTRIC WELDED THROUGHOUT  
RADIATOR SUPPORTED INDEPENDENTLY  
SHIPPED WITH FRONT ASSEMBLED  
CAPACITY  
635 SQUARE INCHES PIPE AREA

Write Us Today—A Real Proposition Is Open

**THE A. H. ROBINSON COMPANY**

5103 Detroit Avenue, - Cleveland, Ohio



ROBINSON No. 544—24" FIRE POT



## QUEEN FURNACES

for every room

IF YOU are conscientious—if you hold a positive interest in your own future business—if you have the wholehearted desire to entirely satisfy every customer—we would like to have you for our representative. Otherwise you would not be interested in our proposition open to a few.

Queen Furnaces have been designed with but one idea in mind—that of furnishing cheery warmth in EVERY room most efficiently. Such a furnace means positive satisfaction, building an everlasting business with big profits. Unless your installations heat every room your business will be short lived.

Far-seeing men are taking on our reputable heating unit because it fits in perfectly on every job, possesses several exclusive features, provides rapid circulation of air, is suitable to any fuel, guarantees long service by virtue of its fine construction and materials, provides perfect combustion of smoke and gasses, possesses efficient humidifier, flat or triangular interchangeable grates and a smoke pipe which can be removed at any angle.

Catalog, agency proposition and merchandising helps on request.

**The Floral City Heater Co.**  
MONROE, MICHIGAN

1654 Monadnock Building, Chicago, Illinois

The latest news about the Warm Air Heating Industry is to be found in this Journal every week.

This is the only trade Journal covering this field published every week.

## Here Is Evidence of "AFCO" Superior Quality —by the jury of "AFCO" Users

Claims, in a court of law, are meaningless unless supported by actual proof. Claims for a furnace that cannot be supported by tests of operation over a long period of years are of no value.

"AFCO" Boiler Plate Furnaces are made extra strong to give exceptional service. We advertise this fact because we know they will perform as represented. What stronger endorsement could any furnace have than Mr. Twitmire's letter? This letter is only one of dozens of unsolicited letters in our files.

A dealer who sells "AFCO" Boiler Plate Furnaces has a greater chance for success. Every furnace he sells brings him new business. "AFCO" owners are enthusiastic over their heating plants and tell their friends.

You can make more money selling the "AFCO" line—let us give you the facts. It costs you nothing to investigate. Write today.

AMERICAN FURNACE CO.  
2719-31 Morgan St.  
St. Louis, Mo.

Gentlemen:

Send us the parts  
marked on enclosed cut  
of furnace for No. 348  
and one check for 8"  
pipe.

Send soon.

Yours very truly,  
W. T. TWITMIRE,  
Bellefont, Pa.

P. S.—This is the first repairs in nineteen  
years. Fired every winter.

W.T.T.

### American Furnace Co.

Dept. 50

2719-31 Morgan St.

St. Louis, Mo.

### No. 1 of a Series

This is one of a number of letters reproduced in our book "Healthful Heating." Send for a free copy.

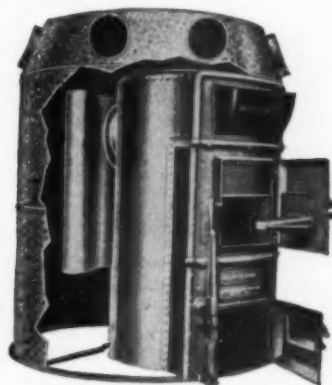
## Standard Dealers Know in Advance



9 styles and 47 sizes of steel and cast iron furnaces carried in stock at all times. Nowhere else can you find such a variety to select from.

They are sufficient to meet demands from all classes of trade.

THAT every buyer will become a Booster. The furnaces shown on this page have proven their ability to return dollar for dollar to the consumer in extra service rendered. Standard Dealers are also assured of real profits by our Dealer Plan, which is different.



Furnace Supplies, such as the following, are nationally known as the Standard of Comparison:

HANDY PIPE & FITTINGS  
RINO STREAK REGISTERS  
H & C No. 170—No. 190 REGISTERS  
STANCO REGISTERS  
STEEL & SEMI STEEL REGISTERS  
ISS SNIPS  
PEXTO TOOLS

Everything needed by the Furnace Installer

**STANDARD FURNACE & SUPPLY CO.**  
OMAHA, NEBR.



# A Great Success!

What some of them wrote about our school:

**Quaker Manufacturing Co.**  
of New England,  
Boston, Mass.

"I wish to express my unqualified satisfaction and appreciation of the splendid course of training which you have so carefully prepared and given to the warm air furnace industry. This is a mark of a man of real vision who can see something more than just the profit of the moment and I am sure that you and your company will reap a rich reward for your broad-minded action on this matter.

Mr. Hartnett of Fitchburg and our Mr. Ventres have both returned enthusiastic and both feel that it has done them a world of good and that they are now far better fitted to handle warm air heating than ever before.

Please accept our thanks and deep appreciation."

(Signed) J. Parker B. Fiske  
President

**The Galt Stove & Furnace Company, Ltd.**  
Galt, Ontario

"We desire to thank you on behalf of our Mr. Wray who attended your Warm Air Convention at Cleveland. He is very enthusiastic over the information and consideration which you extended to him while attending the Convention."

(Signed) J. Sohrt  
Manager

**OUR** course in Practical Furnace Engineering and the Principles of Forced Air Heating proved a revelation.

The men who came got what they were after—a more scientific grasp of the warm air heating business. They arrived in varying moods of faith and skepticism. They ended the course unanimous in gratitude and appreciation.

Veterans of the warm air heating business worked like happy college seniors for two weeks of intense study because they found they were getting somewhere.

They got a new scientific viewpoint that not only will aid their earning capacity, but will insure the delivery of successful jobs.

Slide rule and facts took the place of rule of thumb and guess.

We are glad to pay our tribute to the amazing faithfulness and intense devotion of this splendid group of men who are a distinct asset to the furnace industry.

It is this type of genuine earnestness and deep seated determination to learn more about the scientific side of the warm air heating business that is going to develop the warm air furnace industry faster than any other single force. Our hat is off to the-men-who-want-to-know.

**The Warm Air Furnace Fan Co.**  
6521 Cedar Avenue, Cleveland, Ohio

Write us now if you want to attend our next school

**The Hooper Coal Company**  
Canton, Ohio

"This school has done the writer worlds of good and I believe everyone there felt the same way. I feel sure that we can reciprocate during the coming year by increased fan sales and that those will be installed properly. I now feel in a position to make a layout of any kind of building I might encounter. This school has taken the guess work out of our business, and if there is a similar one a year from now, you can enroll my name right now."

(Signed) R. L. Hooper

**The Marshall Furnace Co.**  
Marshall, Mich.

"I want to supplement what I told you when I left Cleveland about the benefit I have received from your two weeks' class.

After getting back into the harness and looking over the two weeks' work from a kind of 'bird's eye view' position, I have been able to observe that I got a lot more than I thought I did. Of course, lots of things that were taught to us will slip by. We are unable to retain as much technical stuff as we got in as short a space of time, but a great deal of it is coming back little by little."

(Signed) C. S. Stout,  
Engineering Dept.

# MILES AUTOMATIC FURNACE FAN

Mention AMERICAN ARTISAN in your reply—Thank you!





## Don't Give Up the Ship!

HERE is a hard-boiled, sea-going salt who is about to go overboard in the storm. His mustang has a weak back and a strong temper and it's only a matter of moments before Jack reaches land.

Well, a sailor doesn't belong in the cavalry any more than a sheet metal man ought to be a tinner. It isn't his specialty and if he wants to do well, he'll leave it strictly alone.

The man who still makes his fittings by hand when Lamneck specialized machines and mechanics can do that part of the work for him is losing both time and money.



Lamneck Pipe and Fittings have behind them twenty-five years' experience in the warm air heating field. They are designed by skilled engineers, made by expert labor and turned out on patented machinery especially designed for the purpose. Skill, experience and expert workmanship can make no better.

Furthermore, Lamneck products are sold at quantity production prices — prices as low as good products can be sold. To build better — and sell them at one penny less — is an economic impossibility.

Write for samples or catalog.

THE W. E. LAMNECK COMPANY, 416-432 Dublin Ave., COLUMBUS, O.

Western Representatives: The Quick Furnace & Supply Co., Des Moines, Iowa

# LAMNECK

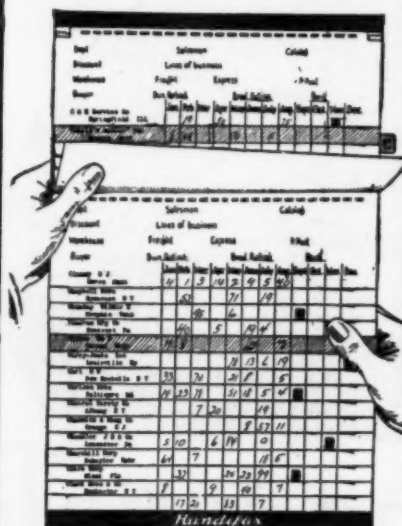
SIMPLIFIED  
PIPE AND  
FITTINGS

*Say you saw it in AMERICAN ARTISAN—Thank you!*

## Sheets of Cards

make Speedy Visible Records

Handifax—A Wonderful Invention—Helps Business



Visualizes recorded facts to executives  
50 Card-sheets show 1000 cards  
Visible space on each card  $\frac{1}{2}$  or 1 inch  
Easy to analyze graphic chart "picture"  
Color signals "flag" your attention  
Cuts record-keeping costs 40%  
Quick for use in reference or posting.  
As handy to use as a sheet of paper  
Sheets of cards can be typewritten  
Good for all kinds of records  
Any size, 100, 1,000, 10,000, 1,000,000  
Your present system can be used  
Very low cost—very compact

Sales Agents Wanted

Ross-Gould Co.

335 N. Tenth St. St. Louis, Mo.

Send for Free Samples

**Handifax**

## BOLTS

WE MANUFACTURE A COMPLETE LINE OF BOLT PRODUCTS, INCLUDING STOVE BOLTS, CARRIAGE BOLTS, MACHINE BOLTS, LAG BOLTS, NUTS, COTTER PINS, ETC. ALSO STOVE RODS, SMALL RIVETS AND HINGE PINS, CATALOG ON REQUEST.

THE KIRK-LATTY CO.

1971 W. 85th St. Cleveland, O.

## PATTERNS FOR STOVES AND HEATERS

THE CLEVELAND CASTINGS PATTERN COMPANY  
CLEVELAND, OHIO

## PATTERNS

FOR STOVES AND HEATERS

VEDDER PATTERN WORKS

FIRST-CLASS  
IN WOOD and IRON  
ESTABLISHED 1835

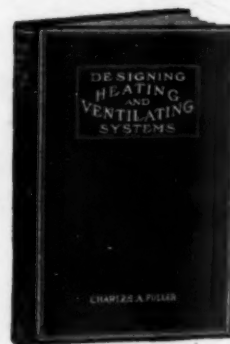
TROY, N. Y.

IRON AND WOOD

## STOVE PATTERNS

QUINCY PATTERN COMPANY  
QUINCY, ILLINOIS

## Books to read Now!



245 Pages,  
6x9 ins.

89 Figures—  
Cloth, \$3.00

### Designing Heating and Ventilating Systems

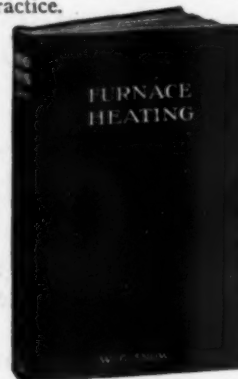
By  
Charles A. Fuller  
Consulting Engineer

THIS new edition, treats the practical application of engineering rules and formulas in every day use, in laying out steam, hot water, furnace and ventilating equipment for buildings of all kinds, presented in a simple manner.

This book explains the heat unit, foot pound and similar measures in such a way that the less technical mind can readily understand and apply them.

It also explains in detail exactly the same methods that the leading engineers use in determining the sizes and proportions of equipment in every day work. The quickest and easiest methods of determining the proper amount of radiator surface for a room or building of any size are described.

Plumbing and Heating Contractors will find it an invaluable reference book. Every phase of Heating and Ventilating treated is developed along the lines of the most recent practice.



258 Pages,  
6x9 ins.

77 Figures—  
Cloth, \$3.00

### Furnace Heating

By  
William G. Snow

Member: American Society of Mechanical Engineers; American Society of Heating and Ventilating Engineers

THIS practical book deals with the different types of furnaces, their design, construction and proper installation, including warm air, combination heating systems, also covering the main features of the one pipe or pipeless furnace.

The author explains in simple English practical information on heating and ventilation of school and public buildings, churches, stores, etc. He also covers the setting up of furnaces, and describes all types of furnace fittings.

AMERICAN ARTISAN  
620 S. Michigan Ave., Chicago, Ill.



**CHICAGO**  
FURNACE PIPE  
AND FITTINGS



All  
Sizes  
and  
Shapes

**Made for Good and Quick  
Furnace Installations**

CHICAGO Furnace Pipe and Fittings go together quickly on the job because they are made to fit accurately and stay together perfectly.

It comes in single or double of heavy high grade material in all standard sizes and practical shapes.

Chicago Furnace Pipe and our complete supply service have been the mainstay of thousands of dealers for over twenty years.

*Try our service now. Write for Catalog  
No. 22 and price list*

**CHICAGO FURNACE SUPPLY CO.**  
1276-78-80-82 Clybourn Ave. CHICAGO

**"American Seal"**  
FURNACE CEMENT  
Roof Cement — Stove Putty  
Plumbers Putty

PAINTS and SPECIALTIES

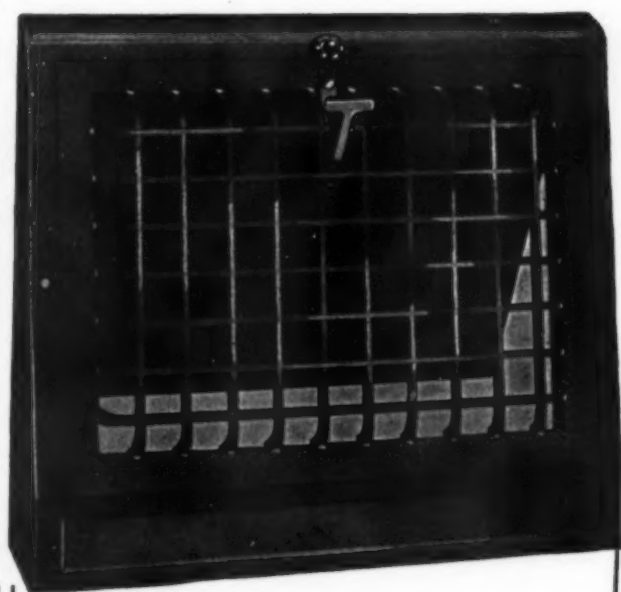
**WILLIAM CONNORS PAINT MFG. CO.**  
TROY NEW YORK

Established 1852  
JAMES L. PERKINS  
Western Distributor  
140 S. Dearborn St., Chicago, Ill.

**Write**  
For Our  
Illustrated  
Book of  
Order Blanks

You'll find this book handy. It explains how and simplifies ordering Stove, Furnace and Boiler repairs from the—  
*Largest and Most Complete Stock*

**NORTHWESTERN**  
STOVE REPAIR CO., CHICAGO



*Have you seen it?*  
**WALWORTH**  
*New Standardized*  
STYLE B  
*Baseboard Register*

NOT only made throughout in accordance with the rules of the Standardization Committee but it is the *neatest* durable register ever made to sell at a popular price.

Simple, easy and accurate in operation, cast face made of the best iron, finished in all the popular finishes and made in the following sizes:

8x10 inch	2 1/4	base extension
8x12 "	2 1/4	" "
9x12 "	2 1/4	" "
10x12 "	3 1/4	" "

*\*Study the features of this new register.*

Write today for full particulars and prices on the Walworth New Standardized Style B Baseboard Register.

Order some for that next job—your customers will want them.

*Made by the makers of Walworth Double Gratings,  
Semi-Steel Registers, Side Wall and Floor Registers,  
Ventilators, Borders and Casings Rings.*

**THE WALWORTH RUN  
FOUNDRY COMPANY**

West 27th Street and N. Y. C. & St. L. R. R., Cleveland, Ohio

*Distributors:*

ROBINSON FURNACE CO., Chicago, Ill.

HART MFG. CO., Louisville, Ky.

PHILLIPS & BUTTORFF MFG. CO., Nashville, Tenn.

*Eastern Representatives:*

PENN TINSMITH'S SUPPLY CO., Philadelphia, Pa.



Published to serve  
the  
Warm Air Furnace,  
Sheet Metal, Roofing  
Stove and Hardware  
Industries

Founded 1880

# American Artisan and Hardware Record

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Etta Cohn  
J. F. Johnson

G. J. Duerr  
Frank McElwain

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### AN ACHIEVEMENT

*An explanatory note regarding service to readers of AMERICAN ARTISAN. This paper is now nearing the completion of a half century of service. For almost fifty years it has catered to the needs of the men in the industries which it represents. At no time during its long and successful career has AMERICAN ARTISAN been in a better position to render complete, adequate service to its readers than it is today. In addition to the matter contained in our regular weekly publication, we maintain Service Departments for the use of our readers. If you have a problem to solve, we courteously invite you to submit it to us for solution. In what better way can we learn of your problems than from you direct?*

## Special Features of the Thatcher Meteor Furnace



### One-Piece Cast Iron Radiator

This causes the hot gases to circulate before passing up the chimney, thus utilizing all their heat value.



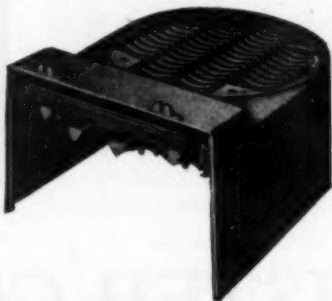
### Large Combustion Chamber

This provides ample space for complete combustion, and assures the full value from each pound of coal.



### Corrugated Two-Piece Firepot

The corrugations add strength and also provide additional heating surface. The deep cup joints are gas-tight even under the strain of expansion and contraction.



### The Anti-Clinker Grate

This is furnished with from 2 to 6 triangular grate bars which operate in pairs, making it easy to free the fire of ashes and clinkers with no waste of fuel.



## The Thatcher Meteor Furnace

FOR a customer who wants an efficient, economical heating plant, and one easy of operation, you can do no better than recommend the Meteor Furnace. You yourself will appreciate its many labor-saving features: The solid front, deep cup joints, one-piece steel casing rings; and the one-piece base plate, which also assures a permanently level foundation.

The Meteor burns hard coal, soft coal or wood with equal efficiency.

*Write for trade information regarding the Thatcher Meteor Furnace and other Thatcher products.*

## The Thatcher Company

Since 1850

NEW YORK  
21 W. 44th St.

NEWARK, N. J.  
39-41 St. Francis St.

CHICAGO  
341 N. Clark St.

# THATCHER

## BOILERS-FURNACES-RANGES

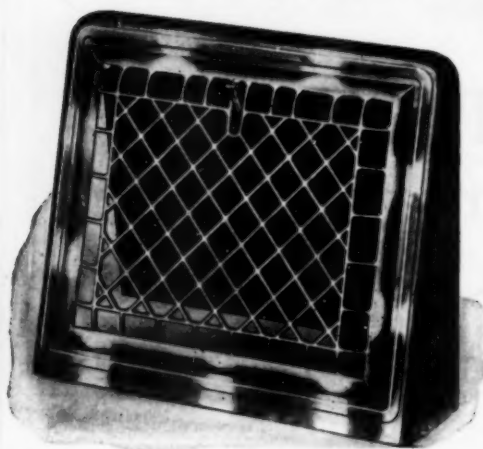
# DO YOU REALIZE



*That*  
JONES NATIONAL REGISTERS  
*ARE THE*  
STANDARD CODE  
*in WARM AIR REGISTERS?*

*FOLLOW the CODE even in Registers*

WE ALSO MAKE EVERY STYLE of  
BASEBOARD and  
FLOOR REGISTERS



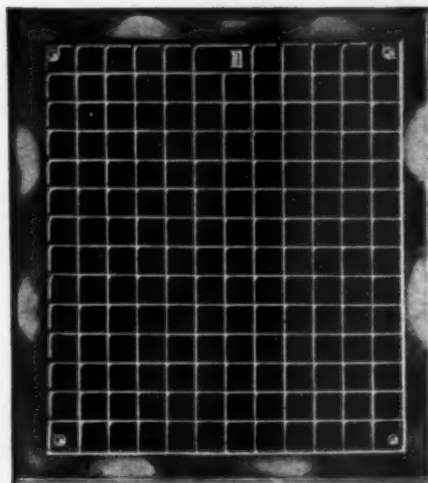
**National Baseboard Registers**

*Made of Pressed Cold-Rolled Steel*

This register is made of two parts—a register and a frame. The frame fits against the plastered wall and the register box passes through the opening and turns over similarly to a floor register box in a floor border. This seals the register to the box.

Write for Register Booklet No. 209 and  
Complete Register Catalog No. 20

and  
STEEL  
FACES  
GRILLES  
WOOD  
FACES



**U. S. Steel Floor Registers**

The Beauty and Strength is Not Pinched out,  
but still have the Correct, Honest Capacities.

*If we make IT— IT'S GOOD*

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When writing mention AMERICAN ARTISAN—Thank you!





# American Artisan and Hardware Record



Vol. 93.

CHICAGO, MARCH 12, 1927

No. 11.



Barn at Kingston, New Hampshire, Which Was Remodeled and Equipped with a Warm Air Heating System and Is Now Being Used by Magnuson Brothers in Their Broiler Chicken Raising Enterprise

## Warm Air Heating Cuts Cost of Poultry Raising Down New Hampshire Way

*Kingston, New Hampshire, Reduces Fire and Disease Hazards With Warm Air System*

By GEORGE J. DUERR

THE New York follies beauty, enjoying her chicken dinner after the show, doubtless gives little if any thought to the investment and labor involved in making it possible for her to indulge in such delicacies. Her "boy friend," who foots the bill in order to be in her charming company, has no idea that warm air heating, at least in a few instances, has reduced the amount of that bill for him.

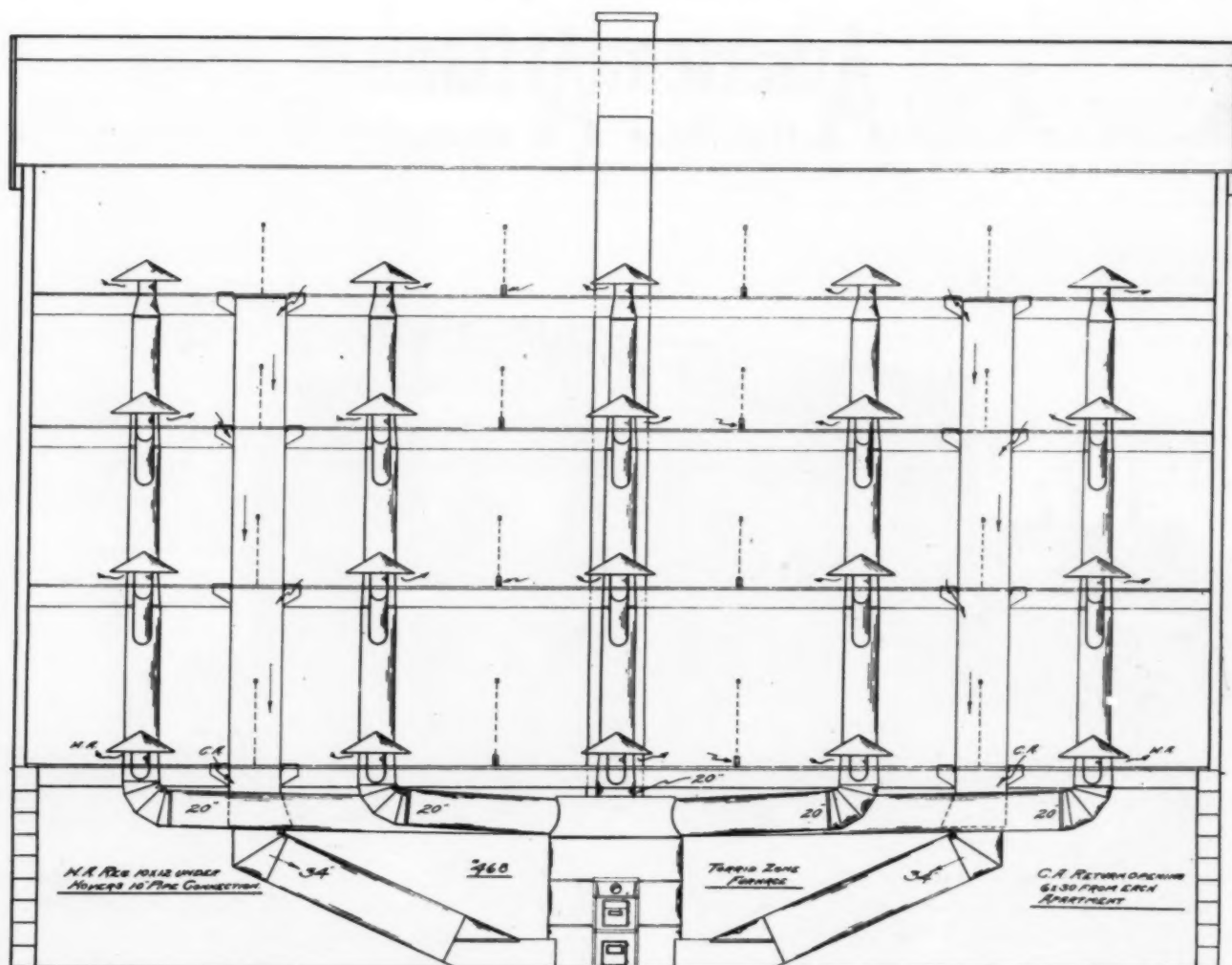
In Kingston, New Hampshire, which furnishes New York City

with a large portion of the broiling chickens it uses every year, warm air heating is serving the poultry men. Here Magnuson Brothers have converted an old barn into a modern 4-deck 20-tenement building in which they are growing from 40,000 to 50,000 broilers every year.

The building is equipped with a warm air heating system, electric lights, running water. The warm air heating system alone has been found to reduce the cost of heating \$5 per day, while the labor cost has

been reduced \$2 per day over the old methods. The results obtained are far superior to any obtained heretofore. The fire hazard, too, is greatly reduced.

The accompanying illustrations show what the building looks like and how the heating system has been installed. The experiment has proved so successful that other broiler raisers are considering the proposition. The installation was made by the Lennox Furnace Company.



Heating Plan of the Kingston, New Hampshire, Broiler Chicken Raising Barn Showing the Location of the Furnace, the Warm Air Ducts and the Cold Air Returns. Plant Reduces Fire Hazard and is Giving Entire Satisfaction to Its Owners

The surprising thing is that John and Walter Magnuson have discovered that their four-decker kitchenette apartment house for winter broilers is saving them five dollars a day on fuel and two dollars a day on labor, in addition to making possible the turning out of three times as many broilers this year as last with the same number of help.

#### Official Endorsement

New Hampshire poultry authorities are agreeing with the owners of this modern plant that the Granite State may adopt the tenement home idea for all kinds of poultry production in the near future. Latest recommendations are that chickens should be grown in close confinement in all cases where trouble has been had or is being experienced with either coccidiosis or paralysis.

The Magnuson plant when lighted up at night resembles in the

distance a big apartment house, equipped with large front windows and attractively designed. At closer range it appears to be a sanatorium with its rows of open front rooms for fresh air restoration to health.

Close inspection, however, reveals it to be something entirely new in poultry growing ideas, with four stories devoted to chickens and broilers quartered in apartments heated in the finest of fashion by a warm air furnace, supplied with running water, electric light and ideal sanitary surroundings.

#### Fire Danger Less

To say that these two brothers are pleased with the results and valuable information their novel experiment has brought, is putting it mildly. For it means hundreds of dollars in cold cash in their pockets in addition to the satisfaction of being leaders in their chosen vocation.

The new plant has reduced the fire hazard to a minimum. Every hen man recognizes the constant danger and worry of fire when 24 brooder stoves have to be coaled up four or five times a day in rooms where the floors are covered with straw or shavings.

There is no call now for the workmen going out of doors, getting into the snow or facing the inclement weather in general, that they once faced in going from brooder house to brooder house. Snow and wet are no longer tracked into the pens to start poultry epidemics.

When these brothers started their experiment, they had an unused barn, some capital and lots of ideas and ambition. Tearing out one side of the barn, they raised up the front and created the basement and four floors of their new tenement house.

In the basement they installed the largest warm air furnace made and distributed the heat to the tenements through five feeder pipes evenly spaced and equipped with pipes leading to each floor.

Over the register in each tenement is placed a brooder hopper that distributes the heat and gives the chicks an extra warm place to go to if they choose. However, there have been many below zero spells so far this winter, but never a day when the chicks hesitated to use the front of the building farthest from the source of heat and beside the window ventilator.

#### **Always Dry and Warm**

With the heater in the basement, the floor of the first pens is always warm and in turn each floor above. The place is entirely free from dampness and has resulted in a low mortality rate.

Because the barn was too spacious for the pen space needed, a space of 15 feet or more has been left between the wall of the tenements and the barn wall. This breaks the effect of all wind and frost. In this "vacuum," the big chimney has been installed so that the chill is taken off the air. The water pipes have been run along the chimney, thus insuring them against freezing.

Each floor is divided into five tenements 24 by 11 feet and separated only by wire so that the heat and fresh air get the best circulation. The stairs run outside the pens except for the top floor, where it was necessary to run them from the middle pen.

On a warm floor free from dampness, in a room heated to 80 degrees and ventilated by large windows that drop back into holders that force the even distribution of fresh air, the chicks thrive and are always lively. Electric lights are employed nights and mornings so they will eat their maximum fill and grow to salable size in record time.

John Bower, neighbor of the Magnusons, first conceived the tenement house idea. His place includes a basement and three floors, where a warm air furnace and hand

elevator have made it possible for him to handle an 8,000-chick plant single-handed, with the exception of what help his boy can give. He expected to put out 20,000 broilers this year.

Frederick Nichols of Kingston, one of the pioneer raisers of broil-

ers, expects to market 40,000 broilers this season. Andrew Christie has a double decker and a furnace with 6,000 capacity and plans to sell 20,000 birds. In East Kingston, John Hilliard and Ralph Buswell put out a total of 40,000 birds annually by a similar method.

## **Klentzer Job Poorly Proportioned and Inadequate**

### **Suggests Making Furnace Casing Double and Closing Cold Airs to Attic**

By WILLIAM SCOTT, Waterman-Waterbury Co.

SOME of the errors in the two-flat trouble job reported by Klentzer & Klentzer, Fowler, Indiana, are fully apparent; others may be concealed, though the data given is fairly complete.

First, the casing should be double, with a 1½-inch air space between. Otherwise heat issuing from the casing will tend to warm the cold air ducts, thus checking circulation.

Second, in the case of a two-flat building, the cold air from the second floor must be returned to the furnace, nor can it possibly be made to go to the attic, as the installer apparently tried to do. Imagine cold air to be water, and it will be easy to see what it would do. The ducts leading from the second floor to the attic, if they really exist, will either carry cold air down or warm air up. In either case they will militate against the heating of the building. They should be closed.

Third, the warm air is not properly distributed. For instance, a living room, size 16 feet by 16 feet, with two sides exposed, is provided with the same amount of warm air as a bed room only 11 feet by 12 feet with one side exposed. The same incorrect proportion obtains throughout. If possible, the warm air register in the front room should be placed near the corner closer to the furnace. But that will not prove sufficient, for a 12-inch pipe will not carry warm air enough for this room and the one above it. This applies also to the dining room

on each floor. Also, the stacks, except to bed rooms, are probably too small.

Finally, one of the cold air boots may be too near the front of the furnace or the cold air may be dropped into the boot at a right angle, which would check the flow, or a right-angled turn elsewhere may militate against the installation.

If possible, the cold air register in the hall should be placed nearer the furnace.

#### **Remedy Suggested**

Re-figure job according to the Code.

Make all runs, both cold and warm, as short and straight as possible.

Make all turns at obtuse angles.

See that cold air is not choked down in rectangular ducts or otherwise.

Make your casing double, insulating between with free air space, for as long as the cellar is warm the cold air cannot return.

Take cold air back to the furnace from second floor, as well as first floor.

#### **Milwaukee Corrugating Company Appoints Harry Christman Vice-President**

J. Harry Christman was, on March 1st, appointed vice-president and general sales manager of the Milwaukee Corrugating Company, Milwaukee, Wisconsin.

Mr. Christman was formerly general sales manager of the company.



# Would Cover Pipes in Klentzer & Klentzer Job to Avoid Heating Basement

## Suggests Changing of Some 12-Inch Warm Air Pipes to 14-Inch Pipes

By E. L. HOLMES, G. G. Ray & Co., Charlotte, N. C.

THE writer is sending you a layout on the job from Klentzer & Klentzer, showing corrections which I believe will help them to secure the proper amount of heat on this job. The writer had a job very similar to this one with almost the identical trouble, and he corrected it in the following manner:

I covered the warm air pipes and the casing of the furnace, upper and lower, with  $\frac{1}{4}$ -inch air cell asbestos paper. This was to overcome the heat from the basement. Before doing this, however, we were careful to proportion all of our heat pipes, taking the total amount of heat from the furnace which the furnace was rated at. In other words this furnace has a pipe area of 900 inches, whereas 756 inches are taken off.

I should suggest that the 12-inch leader in the front room down-

stairs, the 12-inch leader in the dining room and the 12-inch leader in the bed room downstairs in the rear be changed to 14-inch pipes. If there are any of the other pipes that are over 16 feet long would also suggest that you change the leaders in same to 14-inch. This allows a larger volume of air at a lower temperature to pass into the rooms, and this faster circulation reduces the packing down of the air in the furnace and the accessive heat in the casing, which will naturally cause less heat loss in the basement.

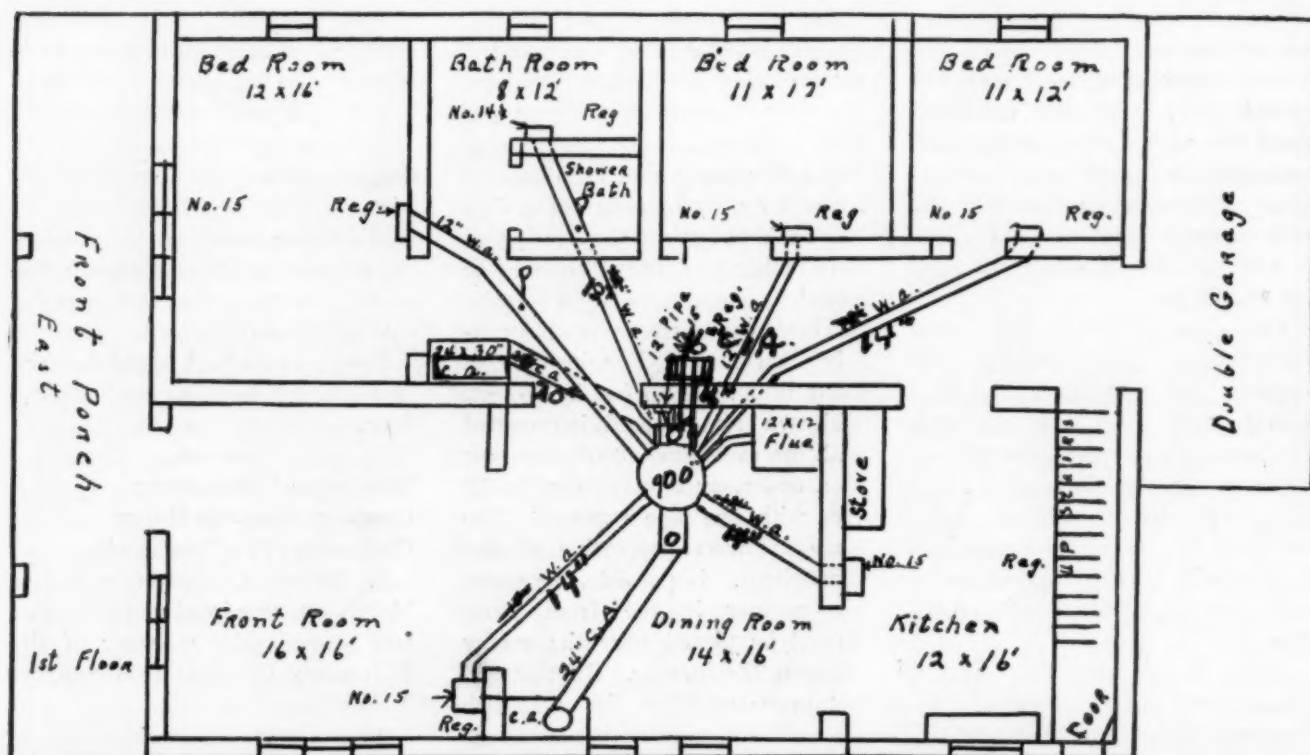
I believe that your cold air outlets upstairs are reversing on you; in other words, the attic air, being colder than the air in the room below, has a tendency to pack the air in the room and retard the circulation rather than help it. The writer would suggest that you take the re-

turn from the upstairs in the corner of the hall above the 24-inch cold air return downstairs and case it in to the first floor and I believe that you will overcome the dead air in these rooms and start circulation.

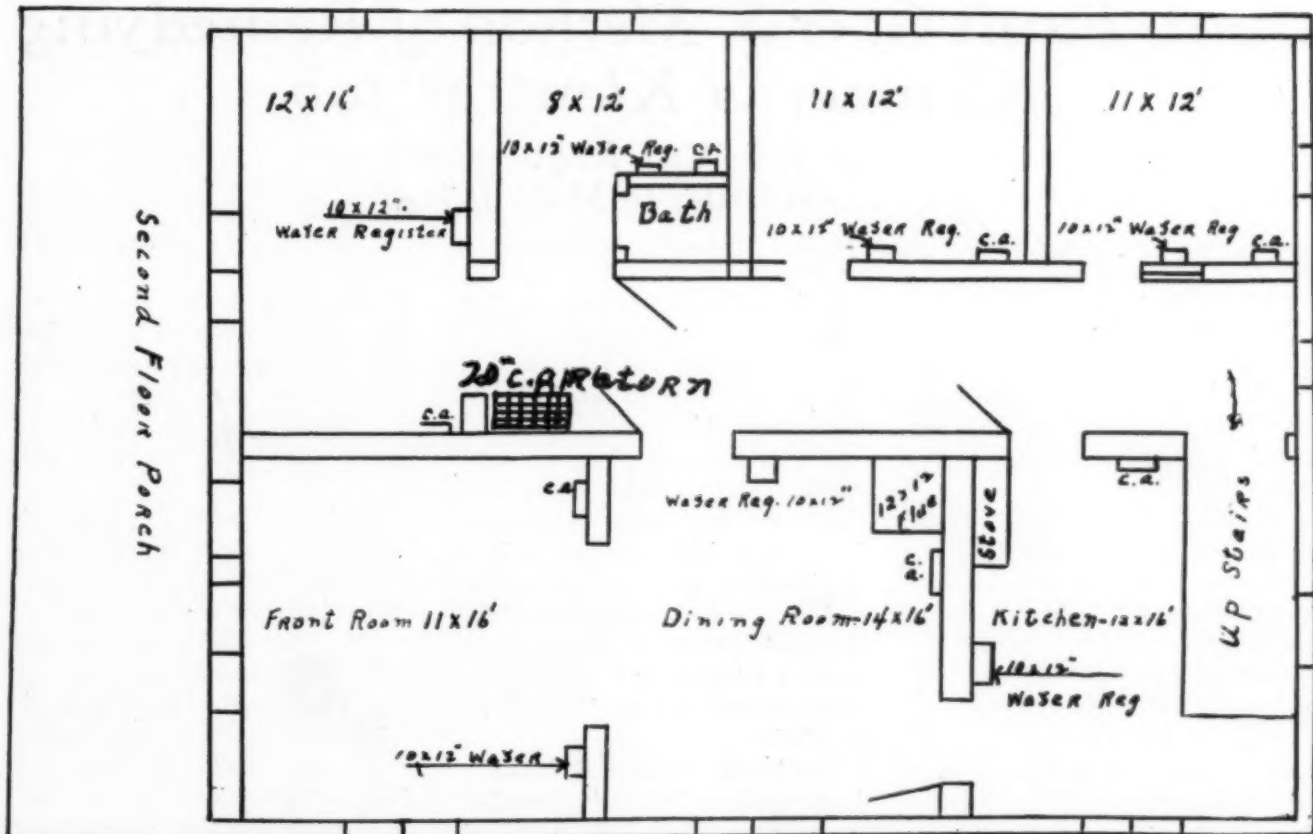
It is hard for the writer to say whether you have the right size wall pipes to the second floor, as these sizes are not specified, neither is the ceiling height or the size of the windows shown.

I trust that Klentzer & Klentzer will find their way out of this difficulty and that they will publish complete the corrected layout, marking the size of the pipes and stacks, so that the readers may have the benefit of their experience on this job.

The writer is very much interested in warm air heating and has studied all of the layouts that have been submitted to the AMERICAN



Showing Changes that Mr. Holmes Would Make in the Klentzer & Klentzer 2-Flat Warm Air Heating Job



Second Floor of the Klentzer & Klentzer Warm Air Heating Job Showing What Changes Mr. Holmes Would Make in This

ARTISAN, but have never yet seen one of the successfully corrected layouts printed.

#### Rybolt Heater Has Successful Sales Convention at Ashland, Ohio

The Rybolt Heater Company, Ashland, Ohio, recently held a most successful dealers' convention at their plant. There were in the neighborhood of sixty dealers present. The meeting is an annual affair and is most instructive to the attending dealers.

Among the principle features of the meeting was the lecture on the Rybolt furnace by a Rybolt engineer. Minute details and fine points of the furnace were explained.

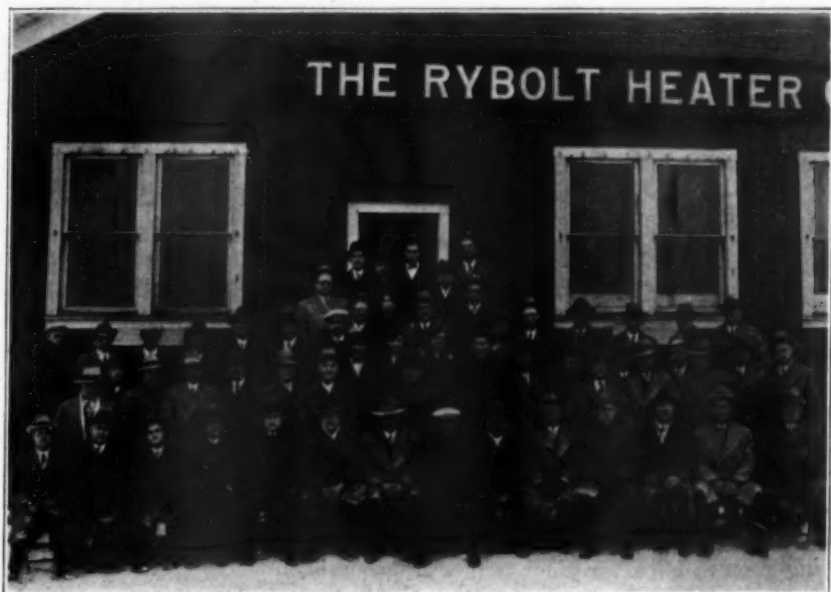
However, those men who were unfortunate enough not to have attended the meeting, there is now out a new Rybolt catalog entitled "The Key to Winter Comfort."

This book is a 26-page affair, fully illustrated and so arranged as to give the reader an exact mind picture of the furnace. The center

piece of the catalog shows a cross-section of the furnace called a pictorial summary, which is exceedingly instructive.

No furnace installer who wishes to keep informed on the latest development in furnace construction should be without this catalog.

A letter from George O. Grouch & Son, of Chattanooga, Tennessee, the other day informs us that Mr. Grouch has sold 31 Rybolt heaters in ten days. Mr. Grouch did not give his sales method or we should have been happy to pass it on to others in the trade.



Group of Rybolt Heater Company Dealers at the Recent Dealer Convention at Ashland, Ohio

# *Finds Fault G. & S. Method of Remedying Klentzer & Klentzer Job*

*Thinks Job Will Require 1050 Inches, in Order to Make It Heat*

By "CONSTANT READER"

**T**HE Klentzer & Klentzer, Fowler, Indiana, 2-flat warm air furnace installation problem appearing in the February 19th issue of *AMERICAN ARTISAN* has two solutions given in the issue of February 26th.

Assuming that the G. & S. Stove & Furnace Company had the plans and knew the window sizes, we have them figuring 489 inches of air for the first floor and 324 inches for the second, and we presume that to be the wall stack necessary.

How do they arrive at an arbitrary amount of 45 inches per room on the second floor? Why not figure it out, taking into consideration the ceiling area as exposure, since it most certainly is exposure?

Second floors always require more than first floors, and here we have them suggesting less. The plan shows a 16x16-foot living room downstairs and an 11x16-foot room upstairs. We assume both to be 16x16.

Why take 10 per cent for exposure on the living room when the code calls for 15 per cent?

The baseboard 4x15 faces in each room on the second floor are acting as vent stacks to a certain degree, and to put a ventilator in the roof so as to relieve the attic pressure will make them positive ventilators, and then you will have to have more inches of heat pipe to offset them. The air change will be greater than as calculated—namely, once per hour.

The G. & S. Stove and Furnace Company suggests that a separate 12-inch run be installed in the living room on the first floors and that the present run be changed to a 10-inch and used to heat the upstairs living room. How can they reconcile that recommendation with the fact that their own figures show that

a 14-inch pipe is required for that downstairs living room?

Assuming that 324 inch stack to the second floor is necessary, as they state, this would equal 463 inches of basement pipe or a total of 489 plus 364 inches equals 952 inches, and they recommend two 18-inch returns inside and one 20-inch outside air or a total of 818 inches, and that, too, a combination of inside and outside air which to the writer's mind is very bad practice when required for heating and not ventilation.

Not having the plans, it is pretty hard to state the heating requirements according to the Standard Code, but, assuming normal window sizes, I think it would take about 1,050 inches of warm air to properly heat this building.

You cannot heat the building unless you run your furnace at a high rate of combustion, and hence the first thing to do is repipe the job so that it does conform with good practice. As long as we have a code, why not use its detail as regards pipe sizes at least?

You must get a balance of some sort on your return air from first and second floors. I have not seen many successful jobs with the heating based on return air circulation on the first floor and outside air principle used for the second floor. The average house does not require any air from the second floor, as there is usually a natural return down the stairway. Here, however, you have two distinct jobs to circulate and both from the same heater; hence if you do not make any provision for the recirculation from the second floor job you will have a block and neither one will heat properly.

If instead of running vents to the attic, those 4x15 registers had been

brought down to the basement and connected to the heater, all might have been satisfactory, even though the job is short of warm air. To have done so, however, would have literally filled the basement with pipes.

If it is only desired to get this job to circulate, you can put two ceiling ventilators in the hall so as to permit ordinary circulation to the second floor by making the two flats operate as a normal house heating job. Then use the 4x15 face in the living room upstairs, place another in the south wall, carry these two down to the basement through common stacks and lock together and connect to the heater, using division plates in the casing to ensure positive circulation.

The balance of the 4x15 faces should then be sealed and the return air boots checked to see that they extend no higher than the grate level of the heater.

The furnace is 72 inches high, the basement 96 inches in the clear, and we are assuming that this 72 inches is the casing height, so that all pipes are run with the proper pitch, or one inch to every foot.

This job can never be a source of satisfaction to either the users or the installer, and barring the possibility of repiping the installation, the quickest and least expensive method of establishing circulation at least would be as outlined above.

The moral, however, is, "If we that contained in the Standard Furnace Code, then why not use it?" have definite information such as

**H. S. Kaiser Heads  
Newly Formed Contracting  
Engineering Company**

H. S. Kaiser has announced the formation of the H. S. Kaiser Company, contractors and engineers in



heating, ventilating, drying and refrigerating machines, located at 31 West Kinzie Street, Chicago. H. S. Kaiser is president.

Mr. Kaiser was formerly associated with Hanley and Company, Chicago, contracting engineers, and worked on the layouts of such large sheet metal ventilating systems as

those installed in the new Bismarck Hotel and the Covenant Club, Chicago. He is thoroughly versed in all phases of the work of installing heating, ventilating, drying and refrigerating systems and should make a brilliant success of his new venture. We wish Mr. Kaiser a brilliant success.

## Foul Air Vent Easily Placed in Rural School House

**Answers Inquiry of William A. Koerner, Ig. Koerner & Sons**

By J. D. GRACE

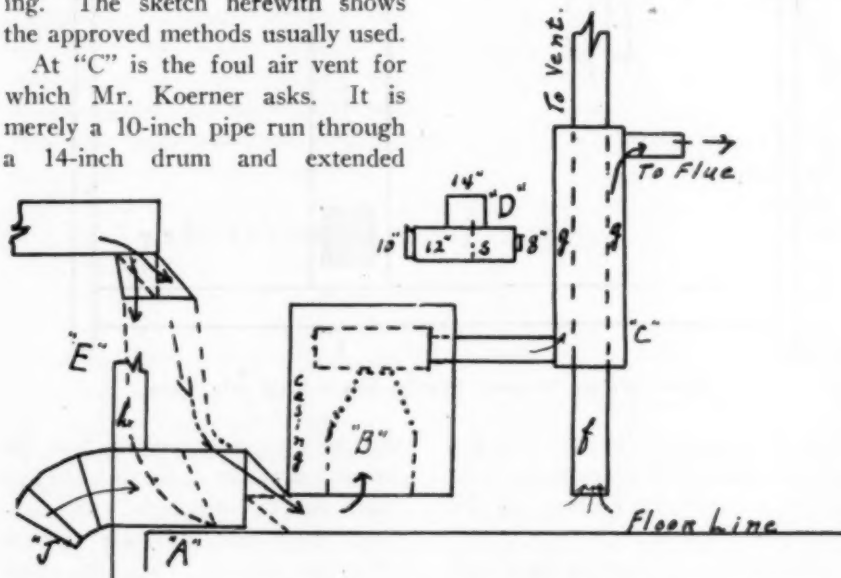
**R**ELATIVE to inquiry of William A. Koerner, of Du Quoin, Illinois, about a foul air vent in a small rural school. I have installed many of them.

In order to be rated as a standard school in Illinois there must be a system of heating, ventilating and foul air exhaust vent in the building. The sketch herewith shows the approved methods usually used.

At "C" is the foul air vent for which Mr. Koerner asks. It is merely a 10-inch pipe run through a 14-inch drum and extended

the system to function. It is, therefore, necessary to make this drum as long as possible, yet there should be no space above nor below the inlet and outlet collars of the smoke pipe.

The vent pipe, *f*, is continuous, forming the inner part of the drum. The flanges at top and bottom of



**Illustrating J. D. Grace's Ideas of Ventilating Rural School Room of Which William A. Koerner Inquired**

through the attic and into a ventilator on the roof.

The vent extends as near the floor as possible and maintains its capacity for drawing air, for at the floor is where the foul air lies.

The drum, g-g, provides passage for the smoke from the heater, heating the vent pipe, thereby creating the "flue velocity" which causes

drum should be seamed onto large pipe and turned and riveted onto the vent pipe. The portion constituting the drum should not be lighter than No. 24 iron.

Where the flue is large enough to handle a 14-inch pipe, a fitting as indicated at "D" may be used. The body of the fitting is 12-inch; the branch is 14-inch. The 8-inch

smoke pipe is connected at one end and the 10-inch vent at the other end of the body of the fitting. A partition is placed as indicated by the dotted line at "S" a little nearer to the 8-inch connection. The idea is to proportion the capacity of the two pipes leading into the 14-inch branch. In this case, as in the former, the vent is extended near the floor, as shown at f. Another method used is to build a double brick flue, one for the smoke and one for the foul air vent, placing a 10 by 12 register at bottom of flue provided, as a baseboard register is placed in a baseboard. That latter method, however, is not considered quite so efficient.

Another feature considered in a complete school room system indicated at "A" is the fresh air intake. It is merely a transition shoe, rectangle to round, extending through the outer wall with a 60 degree angle attached, in which a "hardware screen" plug is inserted at the entrance, indicated at "J." A damper is placed in the round pipe with a lever which can be fastened to hold the damper in any desired position. The fresh air intake is 12 or 14 inches in diameter, depending on the size room it must accommodate.

While I have this sketch here I might add, as shown at "E," the method I usually prefer in cold air pipes. This type of shoe, the plane of both sections being the same, is adaptable to both the transition coming off the rectangular duct and joining the casing. The only difference is found where the rectangular projection (which is merely an added portion to the pattern) is extended only sufficiently, where it joins the duct, to form an S lock. In the one which joins the casing it must extend sufficiently to permit the insertion of bolts to fasten it.

This type of shoe permits entering it at any angle by merely using an elbow of the desired angle, and is easily laid out.

The width and thickness which should be applied at duct gives a width or spread and thickness that is also good at the casing, and at the

same time reduces friction to a minimum, with an appearance which is excellent.

#### **Dave Farquhar to Take Charge of Tee & Bee Chicago Branch**

The Tuttle & Bailey Manufacturing Company, 441 Lexington Avenue, New York City, has announced some changes in the management of its Western organization.

According to Trowbridge Warner, sales manager, Dave Farquhar, the Kansas City branch manager, has been appointed to take immediate charge of the Chicago office of Tuttle & Bailey, left vacant by the resignation of William P. Laffin, 910 Wellington Avenue, Chicago.

"It was the desire of the company," said Mr. Warner in commenting on the resignation of Mr. Laffin, "to take Mr. Laffin to New York for special work among the architects. Mr. Laffin did not wish to leave Chicago, however, and resigned, much to the regret of everyone in the Tee & Bee organization." "Bill" has made no definite plan for the future as yet.

Mr. Farquhar does not come into the Chicago territory entirely unknown, as he worked out of the Chicago office for about three years prior to his taking the Kansas City branch managership and is well known to the Chicago trade of Tee & Bee.

"Charles Wheeler, formerly of the New York office of Tuttle & Bailey, will take charge of the Kansas City branch," said Mr. Warner.

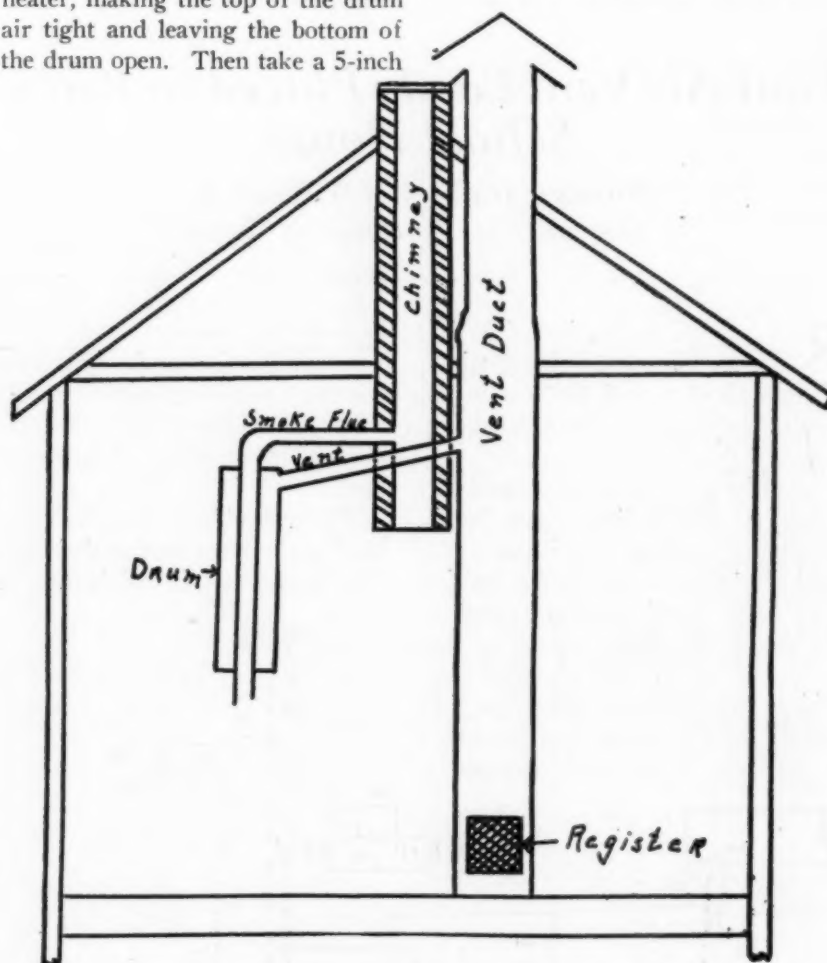
#### **Walter A. Sargent Tells Koerner How to Make Vent for School Room**

In regard to the inquiry of A. Koerner, of Ig. Koerner & Sons, Du Quoin, Illinois, Walter A. Sargent, heating, ventilating and sheet metal contractor, Pekin, Illinois, says: "If Mr. Koerner will place a galvanized iron rectangular duct in the school room, running this duct from the floor of the room to

the attic space, and then continuing it with a round pipe on through the roof and into a regular ventilator, this when properly connected will do the trick. The duct will require a register at its bottom. After this is done, make a 12-inch drum and put it around the smoke pipe of the heater, making the top of the drum air tight and leaving the bottom of the drum open. Then take a 5-inch

prepared a liquid porcelain adhesive cement, known as Insa-lute, which is designed to make warm air furnaces gas tight. This substance is applied like paint, say the manufacturers, and is fireproof, acid-proof and oilproof.

The liquid porcelain is so made



How Walter Sargent Would Erect Foul Air Vent

or 6-inch pipe off the drum at the top and connect this pipe to the vent stack to assist in keeping in the warmth.

The galvanized vent in the school room can have beaver board put around it and painted in the same colors as is the school room. The stack size should be made according to the size of the school room. I have had as good results with this arrangement as with a brick stack.

#### **Technical Products Company Have Liquid Porcelain Furnace Cement**

The Technical Products Company, Pittsburgh, Pennsylvania, has

that it is not necessary to take the furnace apart in order to make the joints gas and dirt tight. It is applied over the asbestos cement while the furnace is slightly warm and the paint sets like cold solder.

It will be to the advantage of all furnace installers to write to the Technical Products Company and receive either their descriptive matter or a sample of the liquid porcelain.

It was stated that an overhead heating system would be described in the March 5th issue. This article did not appear because of the change in the Indiana convention dates.

# Klentzer & Klentzer 2-Flat Job Should Have Had Two Furnaces

## Second Floor Has No Cold Air Return — System Unsanitary

By "RESEARCHER"

I THINK Klentzer and Klentzer's biggest specific mistake is applying the Jones system of installation to a two-flat job. Every stack going to the upstairs should be absolutely independent of any downstairs pipes.

Mistake number two is expecting economically to heat a dwelling without a cold air return. The upstairs flat is a distinctly separate dwelling, and it has no cold air return. The 4x15-inch face plates and connecting ducts are merely fairly good ventilators.

Other mistakes indicated are improper location of registers and stacks, resulting in longer basement pipes than necessary. I can suggest little that would be remedial and most certainly nothing that would perfect the job, for I consider the whole job radically wrong, as I shall try to demonstrate.

As a possible remedial measure I suggest an ample cold air return from upstairs taken as directly as possible down through a closet of the first floor or by a square duct in the corner of one of the first floor rooms. Closing up first floor openings in stacks and setting new first floor register boxes with separate leaders from furnace, should help.

With a 900-inch furnace and 902 inches of cold air return from the first floor, the basement 30 degrees hotter than the first floor, a red hot furnace, etc., "there's a nigger in the woodpile somewhere." Have Klentzer and Klentzer seen all this; tested it out with thermometers, etc., or are they taking the owner's word for it? If their own observation, they had better look to see if their cold air installations are "up to snuff," that they didn't cross beams somewhere and cut down their capacities of 902 inches, or if these

ducts are not built very loosely, allowing much basement air to leak in. Is the whole system, as a matter of fact, practically airtight and frictionless?

But in the name of good warm air heating, the whole installation is a mistake. It is a fuel-devouring, unbalanced and unsanitary system.

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*In this article "Researcher" has analyzed the Klentzer and Klentzer, Fowler, Indiana, 2-flat warm air heating system, which appeared originally in our February 19th issue, and has come to the conclusion that the job should have been installed with two separate furnaces and two separate installations, one for the heating of the first floor and the other for the heating of the second floor, each entirely independent of the other. He points out that the second floor has no cold air return at all, and that the installation, therefore, cannot possibly give satisfaction. — The Editor.*

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If over frugal landlords cannot see the follies and dangers of heating two dwellings with one warm air plant, the heating contractors should try to show them that it is much better to install two separate furnaces. If they do not care about their own health or their tenants' health, with the dangers of sickness being spread through the same air circulating back and forth between the two flats, are furnace men going to continue to install such jobs and be party to the production of unsanitary conditions?

Some installers will probably say that I am an alarmist; that they never heard of such a thing; and

that a furnace would burn out any germs as the air passes over the hot furnace castings. But bear in mind that diseases are not flourishing in zero and sub-zero weather, but in mild periods when temperatures outside run 32 degrees to 60 degrees approximately, and when furnaces are running low and merely taking off the chill of the air. But waive that, if you differ, for here is another angle. An untidy housekeeper in either flat can offset the most diligent efforts of a tidy neighbor to keep a fresh and clean home. And if that isn't enough, should one flat become vacant and be shut off, the other flat probably will be overheated in mild weather, for few people can fire and control a double capacity heating plant properly at such times.

Ideally, this job should be two jobs. There should be one furnace for downstairs with warm air pipes and cold air returns. Distinctly separate from that should be another furnace for upstairs, with its warm air pipes and, if possible a cold air return system from upstairs. If there is only one chimney, it could be used in common, as it seems to have the capacity for two medium-size smoke pipes.

Referring to the second flat again; without a cold air return, air would have to be taken from out of doors or the basement. Basement air is often none too sanitary, but air from a clean, dry and well-lighted basement is to be preferred to outside air near a busy, much traveled street. Basement air is cheaper to install and slightly cheaper to operate. In either case the intake should be carefully screened and, if outside air, provided with a damper adjusted to various fixed positions; if basement air, a tight fitting slide provided to be used



when dust is being raised in basement and in summer when furnace is not in operation.

Any furnace without return air has to be over-fired to some degree. The hot air literally has to be jammed into the leaders and stacks until it overcomes the gravity pressure against it. Baseboard ventilators as described in Klentzer & Klentzer's installation will materially relieve this pressure, not that they take away real cold air—for they do not—but they take away a cushion of low temperature air that makes room for the hot air from the furnace. Any cold air pockets that might exist on the floors would continue to exist until the flat becomes overheated and the cold air absorbed. Without a cold air return an even temperature is rarely maintained, the flat is frequently overheated which is more unhealthy than underheating.

I have not checked up the plans submitted with Standard Code. There isn't sufficient data anyway. But assuming the code has been followed to the letter, the general intent of the code has been overlooked. The code implies an all-connected system of rooms such as are found in one dwelling and not a disconnected number of dwellings that happen to be under one roof.

#### **Robinson Furnace Company Issues Attractive Booklet of Sales Helps**

The Robinson Furnace Company, 205 West Lake Street, Chicago, Illinois, is issuing a very attractive little booklet entitled, "Where Home Comfort Begins."

Considerable thought has been spent on the contents of this mailing piece, with the theme of selling the public on proper installation of the heating plant as the predominating feature of the work.

Around this main theme has been constructed a very interesting and instructive story on selling the warm air furnace to the public. Many helpful hints are included, with attractive illustrations to portray the meaning more fully.

A copy of this little organ can be obtained by writing to the Robinson Furnace Company, 205 West Lake Street, Chicago, Illinois.

#### **Colburn Heater Company Buys More Factory Land**

In anticipation of needing additional factory space in the near future, the Colburn Heater Company, manufacturers of the Col-Burn Steel Heater, has purchased land adjacent to the present plant which is located at 1955-57 North Long Avenue, Chicago, Illinois.

Edward J. Schimke, President, states that the production program

care of by Robert O. Brannan, whose telephone number is Wabash 7421.

One of the primary objects in establishing this office in Chicago is to do warm air missionary work among the architects in this territory and Mr. Brannan will spend the major portion of his time in this way.

#### **B. F. Sturtevant & Co. To Move New York Office to Graybar Building**

B. F. Sturtevant & Company, Hyde Park, Boston, Massachusetts, manufacturers of fans, blowers and



Plant of the Colburn Heater Company, 1955 Long Avenue, Chicago, Illinois

for 1927 calls for four times the number of Col-Burn Heaters sold during 1926.

Figures based on the steady increase of sales, lead them to acquire the additional manufacturing site at this time.

It is claimed by the manufacturers that the Col-Burn Steel Heater has a new and exclusive feature in an automatic arrangement for opening direct damper when feed door is opened.

This feature is illustrated and described in the company's 1927 catalog which may be obtained from the Colburn Heater Company on request.

#### **Warm Air Furnace Fan Company Establishes Chicago Branch**

The Warm Air Furnace Fan Company, Cleveland, Ohio, has established a Chicago branch office at 20 East Jackson street. This Chicago branch office is being taken

vacuum furnace cleaners, will move its New York office to the Graybar building about April 1. This company is installing the ventilating equipment of the Holland vehicular tunnel under North river, connecting New York and New Jersey.

#### **B. A. Wellman Please Communicate With American Artisan**

AMERICAN ARTISAN is very anxious to learn the address of B. A. Wellman. Mr. Wellman sent a Chicago bank cashiers' check for a subscription to AMERICAN ARTISAN but he inadvertently neglected to give us his local address and the subscription department does not know whether the money is for a renewal which is under some other name or a new subscription. If Mr. Wellman will please communicate with AMERICAN ARTISAN at his earliest convenience, we will appreciate it very much indeed as we want to know where to send his paper.

## The Editor's Page

### Whadaya Say—Going to the Dallas Convention?

**S**HEET metal contractors throughout the country who are interested in the development of the sheet metal industry through building a strong national association are already making plans for the trip to Dallas, Texas, where the national convention will be held this April.

To those men who are already making their plans to attend the convention I can say no more than to wish them bon voyage to and from the convention. They have heard the call of Texas and the Dallas local and are on their way.

But, there are, no doubt, many sheet metal contractors who are still undecided about making the trip into the land of the Lone Star state, and to these men this message is directed.

The national convention, regardless of the locality in which it is held, gives excellent opportunity to renew friendships made in years gone by, but which have been allowed to lag because of the distance that has separated the friends. Think of the thrill of walking up to Bill Jones, that old school boy friend, grabbing him by the hand and saying, "Howdy, Bill"!

There will be new faces at the convention—men, personalities like yourself, who have ideas, expectations, hopes and fears that are craving an outlet and satisfaction. These are contacts that you need to make, in order to stimulate your own thought.

To view your business from a distance occasionally gives you a new and entirely different perspective of that business which is necessary but which cannot be gained in any other manner. The experience of a new perspective is broadening; it eradicates or roots out tendencies toward provincialism and makes for a bigger, broader viewpoint and a fuller life.

To learn the viewpoint of other sheet metal men is itself worth the effort to get to the convention. To know the general attitude toward the sheet metal industry, not just locally, but nationally, is one of the best insurance policies you can take out for the future progress of your business. To find out who your enemies are is more than half the battle of making a success of any venture.

Right along with that thought comes one on the educational phase of the convention. The Dallas boys are arranging a program that is not all play, nor that is all work. They have employed the principle of diversification with a finesse of discretion. On that program provision has been made for education, relaxation (in the true sense of the word), inspiration and a lot of good wholesome fun for all who attend. What more could you ask?

In addition to all this, you are going to take a vacation from your business cares this summer anyway.

Why not fill the old bus with gas and head her toward Dallas for a couple of days? You will find yourself among a most congenial crowd of sheet metal men. They won't even be immediate competitors of yours for the most part and you are going to profit immensely by the visit from every point of view that you take the subject.

Then think of the compliment you are paying the Texas men. Perhaps some day you will be entertaining the national association delegates in your own home town. You will then expect men to come to your town from near and far. So let's go to Dallas in one of the largest delegations that ever attended a national convention. You will be better men for having gone; the Texans will be better men for having entertained you; the whole sheet metal industry will be better for the experience. Let's go. Make your hotel reservations without further delay. Let the Dallas boys know you're coming. They'll be out with the band to meet you. Don't neglect it.

### What Are the Best Years in a Man's Life?

**R**OBERT GEORGE got to thinking about life one day and wrote this:

"The twenties are the moulding years of the life, when the young man forms those habits that shall direct his career. Then he finishes his school work, stands before the altar, establishes a home and looks the world in the eye.

"The thirties are years of discouragement. It is a hard and trying time for all. It is a time of battle without the poetry and dream of youth.

"The forties are the years of vision, when a man finds himself, finishes his castles in the air and knows the value of his dreams.

"At sixty, a man has committed enough mistakes to make him wise far above his juniors. He should live better and do better work than in any decade of his life. No man has a right to retire in the sixties; the world has need of his wisdom.

"Some of the best work in the world is done in the seventies. No man has a right to retire at any age unless he wishes to die. A word of congratulation to those who have reached seventy and beyond: You have almost finished your course; we trust that you have fought a good fight and that there is laid up for you a crown of righteousness."

Every man in business meets discouragements without number. Some men are strong enough to withstand the shock of them all; others are not. For these latter the foregoing message from Robert George lends a helping hand in the form of stimulating encouragement.

## Random Notes and Sketches

By Sidney Arnold

*"The essence of humor is sensibility; warm, tender fellow-feeling with all forms of existence."—Carlyle.*

I had the pleasure of meeting Mr. D. E. Cummings on the street last Saturday afternoon while on my way home from a short shopping tour with my wife. It is indeed a distinct pleasure to talk to Mr. Cummings. He moves in an atmosphere of refinement and gentility and has the bearing of the true gentleman that he is.

\* \* \*

Hugh Doherty, of the Detroit Safety Furnace Pipe Company, who is bald, entered the barber's shop and asked for a bottle of his best hair restorer.

"Here is a preparation—that will grow hair on an eggshell."

"Right," replied Mr. Doherty. "I'll take a large bottle; and please wrap up a brush and comb with it."

\* \* \*

### One for Your Golf Department

Arthur Lamneck—"I want some golf balls for a gentleman, please."

Clerk—"Certainly, sir. What sort does he like?"

Arthur Lamneck—"Well, the only time I saw him play he used a small white ball. But I cannot say I gathered the impression that he exactly liked it."

\* \* \*

I had a communication the other day from Mrs. J. H. Schwab, Jr., of Louisville, Kentucky, in which she described what she termed a "tacky" party that was held by the Ladies' Auxiliary of the Kentucky State Sheet Metal Contractors' Association at her home a few nights ago. There were 43 present at the party and they all had a large and glorious time. In fact, Mrs. Schwab said: "Could all of the sheet metal contractors have been present at the party, they would have had difficulty in determining which one of the participants was the 'tackiest.' To have the good will of your fellow man, you must get together and be sociable," said Mrs. Schwab, "and these folks

were certainly sociable during that evening." "About a month ago," she continued, "we had a dinner at one of the hotels and it surely brought out a good attendance, and after dinner we had many different games at which we played, and we danced and sang and made merry in general, and of all wild things, you should have seen Charles U. Riehel. But, Mr. Arnold, I forgot to mention about Jacob Bailen getting the rubber sausage. Jake said, 'Everybody gets chicken, but I get hot dog.' Then when Jake wanted to cut his hot dog, there was nothing doing, and, of course, this put the whole dining room in an uproar of laughter." It certainly affords me a great deal of pleasure to learn about these social gatherings. I can well imagine Jake Bailen's predicament in trying to cut a rubber sausage, and I appreciate Mrs. Schwab's thoughtfulness in sending this in.

\* \* \*

I had the pleasure of a visit on Thursday of this week from Robert O. Brannan, who is in charge of the newly established Chicago branch office of the Warm Air Furnace Fan Company, Cleveland, Ohio, and R. C. Walker, manager of the Meyer Furnace Company, Peoria, Illinois, who was in Chicago on business that day, and Harvey Manny, of the Robinson Furnace Company, Chicago, and president of the Western Warm Air Furnace & Supply Association. I certainly appreciate having these men drop in in this way. That is one of the pleasures of being associated with the warm air heating and sheet metal industries.

\* \* \*

### Real Salesmanship

A large concern selling warm air furnace appliances to jobbers and retailers advertised in one of the leading dailies recently for a salesman and received a large number of

replies. Most of them came from young men who suggested that, as they had graduated from this or that institute, they were willing to start as salesmen with the view to gaining promotion because of their knowledge. One answer from Lee W. Gillespie, now of the Ferdinand-Dieckman Co., stood out prominently. It said:

"I am a real salesman and can prove it. I recently sold fifteen gas-fired warm air furnaces in a town which is not supplied with gas and has little chance of being supplied in less than two years. That's real salesmanship, in my opinion. How about that position?"

\* \* \*

### Safe Prediction

"Say, Joe, you're a broker. Can't you give me a tip?"

"I know something that is now twenty, and within six months I can guarantee it to be over ninety."

"Sounds fine! What is it?"

"The temperature."

\* \* \*

### The Flu

Just as I see it, from my point of view, It's equal to smallpox and cholera, too; It comes like a thief, in the dead of night,

Comes without license, or warning or right;

It tackles your head, it tackles your toes,

Your back and your ears, your throat and your nose,

It racks every inch of your body with pain,

And stays on the job, till it drives you insane.

It's a viper demon snare and a cheat; It knocks all the props from under your feet,

Your bones are broken, your stomach's "upsot,"

You "don't care a cent, if school keeps or not."

Ambition's all gone, your muscles are sore,

There's nothing to live for at all any more.

I'd rather have anything else than the "flu,"

If I had a voice in the matter—would you?

I fought it like sin, when it first came about,

And shunned it so much, that I seldom went out

Lest I should encounter a cough or a sneeze,

Or some petty ailment that might lead to these.

So I stayed right at home, and used all the stuff,

That ever I heard of to gargle and snuff;

But after it all had a fight with the "flu";

'Twas equal to smallpox and cholera, too.

IDA R. McADAMS.



# National Secretary Markle Answers Query of Waco, Texas, Contractor

*Says Practice Described Is Unethical to Entire Construction Industry*

**I**N answer to the question asked by the sheet metal contractor in Waco, Texas, on whether certain practices were ethical or not, no less an authority than Mr. W. C. Markle, secretary of the National Association of Sheet Metal Contractors, has the following to say:

"1—Association effort can be made as far-reaching as the members of any association care to make it, of course, always keeping within the law by refraining from 'price fixing' and 'restraint of trade.'

"2—An association within any industry can and should be based on the 'Golden Rule,' that is, make the business measure up to the 'Golden Rule' rather than try to stretch the 'Golden Rule' to fit what has been considered 'good business practice.'

"3—Such practice as that described is considered as unethical, not only in the sheet metal industry, but throughout the entire building construction industry.

"4—It could have happened if there were a local association of Sheet Metal Contractors at Waco, Texas, provided the members did not attend the meetings to keep informed as to developments in the industry, or if there were a lack of confidence in one another.

"The mere forming of an association, or joining one, does not cure the ills in an industry. It requires whole-hearted coöperation to improve the practices which have been eating away the very life of the business.

"The only way a real cure can be effected is by confidence in one another, which permits the exchanging of ideas and experiences, through which a 'code of ethics' can be adopted, and lived up to, so that business may continue on an even keel. It is time to stop 'rocking the boat.' "

Following this analysis of the factors in the Waco, Texas, case, Secretary Markle gives a copy of the Code of Ethics drawn up by the Pittsburgh Building Trades Employers' Association, which appeared in the February issue of the *Sheet Metal Contractor*, which follows:

## **Pittsburgh Building Trades Employers' Association Prepares Code of Ethics**

"The working principles, by which members of the Building Trades Employers' Association are to be governed in their relations with client owners and the public, with other agencies of construction, and with members of their own profession, are as follows:

### **Owners and the Public**

"Fair and bona fide competition is a fundamental service of our industry to which clients and owners are entitled. Any act or method in restriction thereof is a breach of faith toward this association and a betrayal of its principles.

"Competition cannot serve its legitimate purpose unless it operates under conditions alike, fair to owner and to contractor.

"Observance of ethical conduct toward the contractor, by those who utilize his competitive bidding, will be encouraged in proportion as he, himself, abides by the ethics of fair competition. Only when he respects the code of this association can he reasonably ask others to respect it.

### **Ethical Conduct With Respect to Competitive Bidding**

"1. Competitive bids preferably should be submitted only when a definite time and place for the opening of all proposals has been fixed, at which all bidders or their representatives are permitted to be present.

"2. The contractor's professional knowledge is the result of his train-

ing and experience and if he is called upon for preliminary estimates or appraisals it is proper that he should be paid in the same manner that engineers and architects are paid for similar service.

"3. Bidders should neither seek nor accept information concerning a competitor's bid prior to the opening, nor by any method suppress free competition. It is equally improper for owners and architects to use bids in an effort to induce any contractor to lower his figures.

"4. Contractors should coöperate in advising architects, engineers and owners with respect to the relative costs of various alternates while plans are being prepared and thus seek to reduce the number of alternates to a minimum.

"5. The Standard Form of Contract Documents, Fourth Edition, should be used. This form has been adopted by:

"The American Association of State Highway Officials.

"American Engineering Council.

"American Institute of Architects.

"American Railway Engineering Association.

"American Society of Civil Engineers.

"American Water Works Association.

"Associated General Contractors of America.

"Western Society of Engineers.

### **Ethical Conduct Towards Architects' and Engineers' Demands**

"1. That support should be given to all efforts of these professions to maintain and extend high standards of conduct.

"2. Contractors should give full credit to the value of the services rendered by the architects and engineers and neither undermine nor disparage their functions or usefulness.

### **Ethical Conduct With Respect to Sub-Contractors**

"1. Proposals should not be invited from any one who is unqualified to perform the proposed work or to render the proper service, or to whom, in event that his proposal should be the lowest received, the contractor would be unwilling to award the contract.

"2. The figures of one competitor shall not be made known to another before the award of the sub-contract, nor should they be used by the contractor to secure a lower proposal from another bidder.

"3. A contract should preferably be awarded to the lowest invited bidder, but if the award is made to another bidder, it should be at the amount of the latter's bid.

"4. In no case should the low bidder be led to believe that a lower bid than his has been received.

"5. The contractor shall make payments to the sub-contractor in accordance with the terms of the contract between them.

"6. Sub-bids should not be requested by the contractor when he intends doing the work himself."

For the use of sheet metal contractors who would like to have local associations formed in their own cities, here is a list of reasons why an association membership pays for itself.

### **Here Are Reasons for Association Membership**

Nine-tenths of my customers belong to their respective trade associations. It will give me a higher standing with them, because it demonstrates I am interested in acquiring all information possible about my business and service to my customers.

Every other business, trade and profession is organized in my home locality and state.

Business men in every other line meet in local and state gatherings; exchange ideas, experiences, methods; discuss business policies, practices and problems common to all. These gatherings are helpful and practical; all return better equipped for business.

It stands for coöperation and

helps overcome prejudices, jealousies and bad feelings so common among competitors when they stay apart.

It associates me with men who have made a success of their business and gives me an opportunity to study their methods.

It promotes trade interests and fosters uniformity of trade actions.

It stands for coöperation, which increases efficiency, promotes good

feelings, improves quality, creates enthusiasm and results.

It is the door which gives me access to my competitor and the opportunity to confer with him.

It teaches me how efficiently to study my business; to specialize in quality products.

It promotes the use of high-grade materials and workmanship, because the sale is competitive in quality and not price alone.

## **Milwaukee Sheet Metal Men Discuss Changes in Code of Fair Practice**

### **Question Involves Practice of Owners When Calling for Bids for Work**

THE Employers' Council is watching very closely the developments on the bill asking sheet metal contractors to become licensed. This was learned from Mr. Hammann at the recent meeting of the Master Sheet Metal Contractors' Association of Milwaukee, Wisconsin, according to L. F. Reinke, secretary.

The meeting was called to order by President Schumann at 8 p. m. Sixteen members answered the roll call.

The minutes of the previous meeting were read and approved with the correction that prizes should only be awarded to those attending the meetings, the same as done in the past.

Correspondence was read from the American Rolling Mill Company, wherein they accept the invitation to address the May meeting on the manufacture of iron and steel.

Letters from the Association of Commerce and the Copper and Brass Research Association were read and the secretary instructed to answer both.

The Code of Fair Practice of the Milwaukee Construction Industry was brought up for discussion. After careful consideration, paragraph 8, page 8, was changed to read as follows: "With a further view towards helping to minimize the economic waste inherent in the competitive system of bidding al-

luded to in the previous paragraph, the Owner, in consultation with his Architect, should, preferably before bids are called for, come to a decision as to whether he wants his work performed by a general contractor, or under separate contracts, and then call in for bidding one class of contractors only." With this correction, on motion made by O. Hoffman, duly seconded, the code was adopted as it read. The secretary was informed to so notify the Construction Industries Committee.

Art Podolske won the attendance prize. For next meeting this prize will amount to \$4.

### **N. Steindorff, of Unishear, Begins Extended Trip Through South**

On March 10th N. Steindorff, president of the Unishear Company, New York City, left New York for an extended trip through the South. Mr. Steindorff will make Richmond, Virginia, his first stop, and from there he will work as far south as New Orleans.

On his way homeward he will visit Mississippi, Kentucky and Ohio.

He is making this trip by automobile and will carry several demonstrating machines.

The object of this trip is to become acquainted with the trade and to line up personal representatives for Unishears.

# Sheet Metal Dan Says Fair Profit Best Guarantee of Good Work

*He Also Says His Membership in His State Organization Worth Many Times Dues*

**S**HEET METAL DAN, of the Distributors and Salesmen's Auxiliary and Sheet Metal Contractors' Association of Pennsylvania, in his sixth article says: "Confidence in your being right is a great help in landing a sheet metal contract at a fair profit.

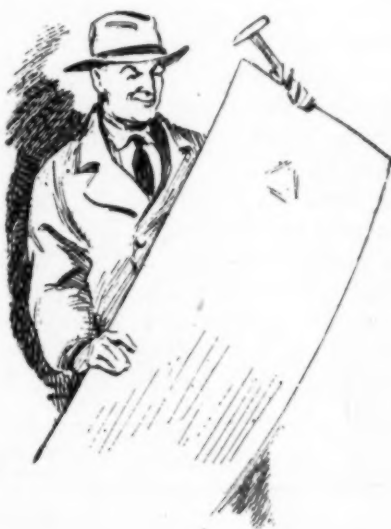
"I've always noticed that having money in your pocket made it a lot easier to make more money. A little extra cash makes a world of difference in the kind of jobs a fellow can swing. Everything favors him if he's got some capital. He gets chances that never come near the guy who's short of ready cash, and he doesn't have to take on losing propositions just to keep his shop going, either.

"Money won't do everything, but it sure oils the wheels of business. For one thing, a bank balance will help to meet the payroll if collections happen to be a little slow. It will get materials you need in a hurry for a special job, and even let you discount the bill. You can slap down the binder on the contract and turn your men loose on the work, while you go out and look for still more business. Yes, and ready money will get you credit at the bank, and that's not to be sneezed at.

"But most important of all is the freedom that a little extra cash gives a contractor to pick and choose the jobs he wants to do. He can accept the ones that he thinks will make him a profit, and reject the ones that look like losing propositions. Or he can even wait until the right job comes along, the job that he feels he's best equipped to turn out at a satisfactory profit to all concerned.

Taking on a losing piece of business is nearly always a mistake. Contractors are tempted to do it because they think it will keep the men busy and tide the business over

until they land a more profitable job. But losing money never helps a business. Every time a sheet metal man takes a cut-price job at a loss, he cuts into his capital and makes it harder to get decent prices another time.



## Sheet Metal Dan

"On the other hand, there's no surer way of building up a business than by making a fair profit on every piece of work that's turned out. It takes nerve to get fair prices for your work nowadays, just as it takes character to reject the cut-price jobs, but it's better to be a little nervy and independent than to take on business at a loss. How much more satisfaction there is in remembering a job that was a fine piece of work all around than some deal where everything had to be skimped and butchered! I never could see anything to this cut-price business, anyhow.

"Don't forget it—a fair profit to the contractor is the best guarantee of good work the buyer can get.

"I belong to the Sheet Metal Contractors' Association of Pennsyl-

vania. It saves me many times the cost of my annual dues."

Sheet Metal Dan's address is 7253 Frankstown Avenue, Pittsburgh.

### Board of Directors of Wisconsin Sheet Metal Meet in Milwaukee

The Board of Directors of the Master Sheet Metal Contractors' Association of Wisconsin held a meeting in Milwaukee on the afternoon of March 4, 1927.

Present at the meeting were C. C. Tolg, Waukesha; C. Pansch, Racine; E. Tonnsen, Milwaukee; A. Schumann, Milwaukee; P. Biersach, Milwaukee; A. Podolske, Milwaukee; Alfred Goethel, Milwaukee; R. Jeske, Milwaukee; William Gehrke, Shawano; L. Reinke, Milwaukee.

It is the intention of the members of the Wisconsin Association to learn whether or not they are not paying too high a rate for their employers' liability insurance. As a beginning, the secretary was instructed to get in touch with all the state sheet metal associations in order to ascertain how their compensation insurance rates compare with the crafts of similarly hazardous enterprises in their localities.

Letters from the Valley Sheet Metal Works, Wernecke-Schmitz Hardware Company, Otto Geussenhainer, and Reinick-Kreuger were read, and the secretary instructed to answer those requiring a reply.

Statements from Secretary Markle of the National Sheet Metal Contractor were read and ordered placed on file.

It was also decided to have the secretary arrange to have Allen Roberts of the Roberts Company give a talk on compensation insurance at the next regular meeting.



# Showing Construction of Pattern for Sheet Metal Boat

*Responding to Inquiry of David W. Bowers, Abilene, Kansas*

By O. W. KOTHE, St. Louis Technical Institute

**H**ERE is response to the inquiry of David W. Bowers, of Abilene, Kansas, for a sheet metal boat with a flat bottom, 14 feet long, 4 feet wide in the middle and 18 inches deep; the attached drawing will show how to work that out.

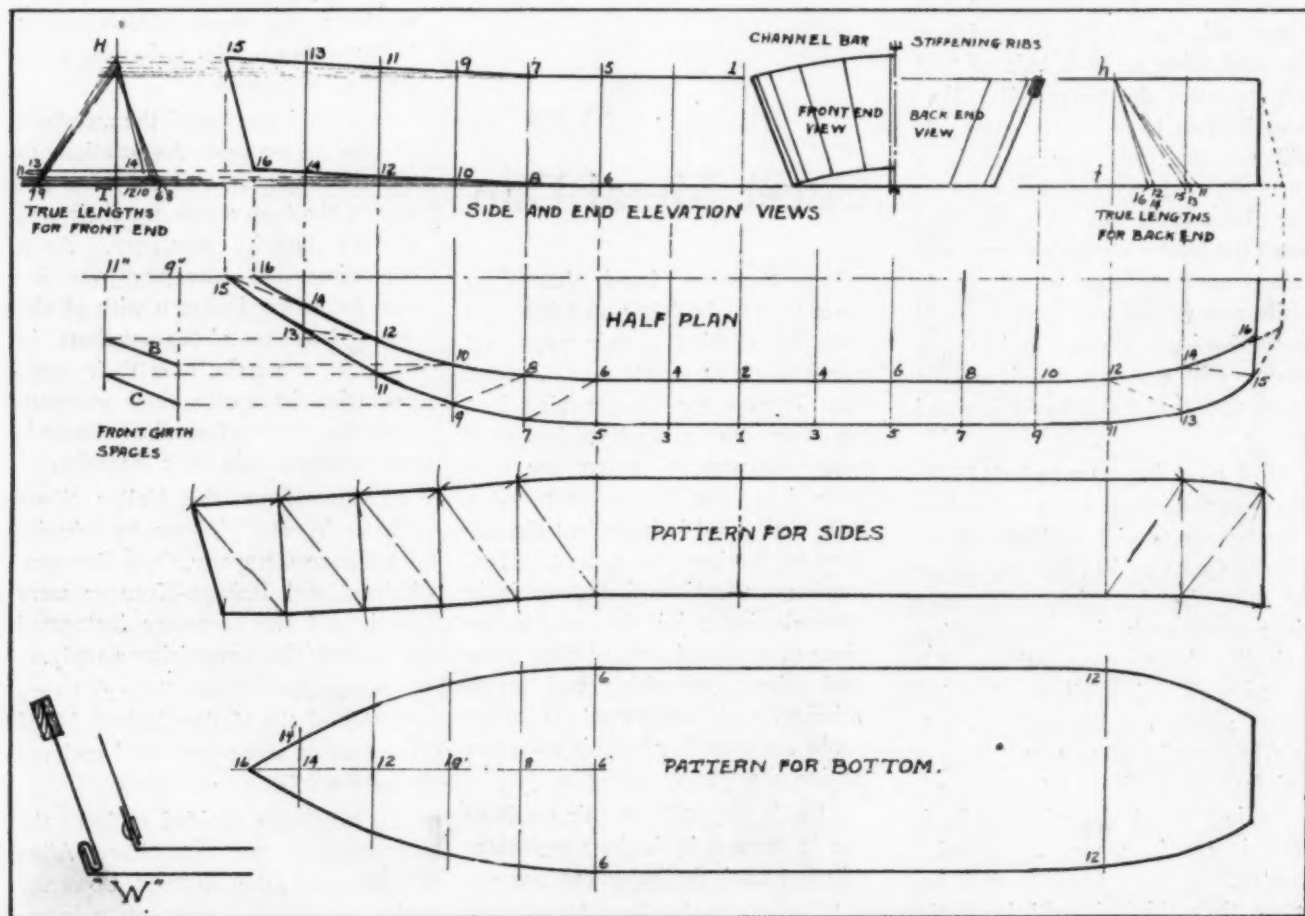
Being that such work is rather large to handle, it will be best to lay the work out to a scale of possibly  $1\frac{1}{2}$  inches to the foot, and then develop the patterns, after which enlarge the patterns full size on the metal. Possibly the side elevation is best drawn first, giving it the height, and length you desire, and also the angle of the front, as 15-16, and the back—whether straight, as

we show it, or slanting as the dotted lines indicate. You can also raise the front, by curving the bottom and top similar as lines 6-16 and 5-15 show. The exact amount you must fix to suit your own fancy. The back end can be left flat on the bottom, or also raised, just whichever you desire.

After this draw the half plan, laying down the center line, and then measure the width of the body at about the center and then work in your two side lines. This is also a guess proposition and you must sketch them into whatever curvature you wish for them to have. If you have the sloping back—then the working out of the lines is

shown in the dotted position of plan at the back, which does not change anything very much.

Next, measure off for the ribs, that is stiffeners or braces, whichever you wish to put in. In this case we have marked off lines one foot apart—indicating a rib every foot of the boat's length. No doubt a small channel iron bar, about  $\frac{5}{8}$  inch deep and possibly  $\frac{7}{7}$  to 1 inch wide is the best sort of rib. It is easy to shape and is easy to put in place, and is quite stiff with the two webs, and is as light as any other material that could be used. These lines are then brought down to pass through both the elevation and the plan, much as we show, and they



Patterns for Sheet Metal Boat

serve at the same time for developmental purposes.

The end elevation shown built in with the side elevation is not necessary to draw, although it can be done if you desire. By means of the half widths of plan we can transfer these into end view, and so establish the position of the ribs in that view if desired. It is of aid in bending the ribs to the angles thus made; since each of the ribs lie in their true position.

Now in observing the plan, we see the middle portion can be laid out straight, while the front and back ends change in their flare and so must be treated by triangulation. On inspection, this process is no different than laying out a tapering pipe, or a square to round. The elevation gives the altitudes, and the plan the base lines. From 5-6 of elevation to the right only one altitude is used, as h-t. Up to this point the sides are straight, and we can drop lines from 11-12 of plan and 5-6 of plan, and measure the width equal the side line of end view. Or we can pick the true length, h-12, which is the same, and make the width of pattern to this. The plan lines of rear, as 12-13, 13-14, 14-15 and 15-16, are set over from t of true length diagram, and this gives the true lengths for rear.

But for the front end more watchfulness must be displayed so the plan lines are set on the proper horizontal base line that matches up with the elevation, and then draw to the correct altitudinal line or height. This is quite the same as transitions having different altitudes.

Now the front of the boat curving upward, and inward, neither plan nor elevation lines are true girth lines from 5-6 to the front end. Since the slope is gradual on all of them they will all average the same, so it is sufficient to take one average space, as 9-11 or 10-12 from elevation, and set it as 9"-11". Drop lines, and then from points 10-12 and 9-11 of plan project over lines, thus developing the lines B and C. These can be used as the girth lines in developing the pat-

terns from 5-6 to 13-14. After this 14-16 and 13-15 is picked from plan, lengthening the line a small fraction to conform to the average of the developed lines, and use that to finish the pattern with. Space 14'-16 of pattern is the correct length of space.

The bottom is merely a reproduc-

tion of the bottom of plan, only using the length spaces, 6-16, from elevation and setting them on the center line and developing the curve with plan widths as shown. This finishes the pattern. Edges can be allowed extra in accordance to the way you wish to assemble the joints, as per sketch "W."

## Washington Sheet Metal Man Makes Largest Pie Tin

*600-Pound Prune Pie Baked by Mrs. Walter Johnson and Cut by Secretary Hoover*

**A**LL records for pie—even in Washington—were broken by the 600-pound bit of pastry served recently at the annual dinner of the California State Society.

This pie, which undoubtedly was the biggest ever baked, was prepared under the direction of Mrs. Walter (Barney) Johnson, native-born California girl and wife of the popular pitching ace of the Washington baseball team. It was served to some two hundred distinguished

guests, including virtually the entire California delegation in Congress. It was cut by none other than Secretary of Commerce Herbert Hoover, himself.

When the California State Society decided to serve a monster prune pie at its annual dinner in Washington the problem was to find a pastry tin of adequate size in which to bake it. After a vain search through the principal hardware stores, the committee com-



Largest Pie Tin in the World Made by Ernest Gichner, Sheet Metal Contractor, 1107 "E" Street, N. W., Washington, D. C.

missioned a local tinsmith to build specially the giant plate pictured above. In this tin, which measured five full feet across the top and weighed one hundred pounds, was baked a 600-pound pie that served

more than 200 persons. The pie, which was cut by Secretary of Commerce Herbert Hoover before a distinguished gathering of Californians, was declared to be the largest bit of pastry ever baked.

## ***Pexto to Promote Contest in Vocational Schools for Better Sheet Metal***

### ***To Give Medals to Students Who Excel in Handling Machines***

THE Peck, Stow & Wilcox Company, Southington, Connecticut, is at present promulgating a contest among school shops equipped for the teaching of sheet metal work, the purpose of which is to promote student interest in the sheet metal working industry.

The rules of the contest are as follows:

"As pioneers in the sheet metal working machine and tool industry celebrating with the end of our fiscal year in July our 108th anniversary, we are awarding a very appropriate and attractive pocket piece or medal as facsimile shown on first page.

To promote student interest in the sheet metal working industry and the exercising of good judgment in the proper care and handling of tools and machines of the sheet metal worker's craft—these awards of merit will be furnished by The Peck, Stow & Wilcox Company to school supervisors gratis, to be turned over to sheet metal shop students who have qualified in the test and rightfully earned the same.

Examinations can be made or tests can be held at the school's option, the entire student body in sheet metal work participating.

While these awards are to be made more particularly to create a desire to take pride in and exercise every good care in the use of tools and manipulation of machinery for effective sheet metal working operations, it is also the school's option to correlate, to the tool and machine questionnaire, any other common questions regarding any standard exercises in sheet metal working

practice as the individual school might have adopted for suiting their own needs.

The test can be sponsored by the city director of vocational education or state supervisor of vocational education or in conjunction with a committee composed of both local contractors and labor groups.

Realizing that every field and each school has its own problems, we are not in a position to dictate as to what would formulate a correct examination and how the test should be conducted in order for the student to receive the award.

As the manufacturer of tools and machines used in the sheet metal worker's craft, without cost we are glad to furnish the awards placing absolutely no restrictions on how the examination or test might be conducted.

The only condition we make is that when calling upon us to supply these awards on conclusion of the examination or test that we receive a copy of the examination papers of each student that has won the award with his name and address and the name of the school and class attended together with the name of the instructor. It is asked that a list of the shop machines also be offered giving the name of the maker of the equipment but whether all Pexto equipment is used or if the equipment is mixed, this does not in any way bar a school from entering into this contest. We are simply desirous of ascertaining for the information of the Sheet Metal Industry how many schools are engaged in this work.

This survey incidentally will

profitably serve schools for bringing about closer industry co-operation.

Our Guide, machines and tools for sheet metal work, No. 25A, will offer some very useful helps in making up questions pertaining to the construction and uses of common tools and machines as used in the class room and any instructors that have not supplied themselves with a copy of the "Sheet Metal Workers' Manual" by Broemel, that will offer further information relative to machine setting up exercises, we will be glad to submit a prospectus of this Manual and supply the same at the regular advertised price of two dollars per copy postage prepaid. However, the reference made to the "Sheet Metal Workers' Manual" is a matter of information and the acquiring of a copy of this manual does not in any way enter into the rules or conditions of this contest.

These awards will be furnished when called upon in keeping with the simple arrangements as covered in the foregoing.

In the event that it should not be convenient to conduct such an examination or test at this time, it is optional whether such a test be made previous to or after July.

More particularly we want to make you acquainted with the fact that these awards are available and we know that in the offering of the same the student will be given incentive to study and learn, as a pocket piece of this kind will be prized more than its metal value inasmuch as it was awarded by the largest manufacturer of its kind in the world.

The boy that may make sheet metal working his vocation will particularly prize this award, as it gives him a recommendation to be proud of and it will carry great weight with any sheet metal shops where he may seek employment.

May we depend upon your interest and co-operation in the starting of a real program for the up-building of the industry and to the care, pride and proper use of tools and machines used in the same.



# Experience

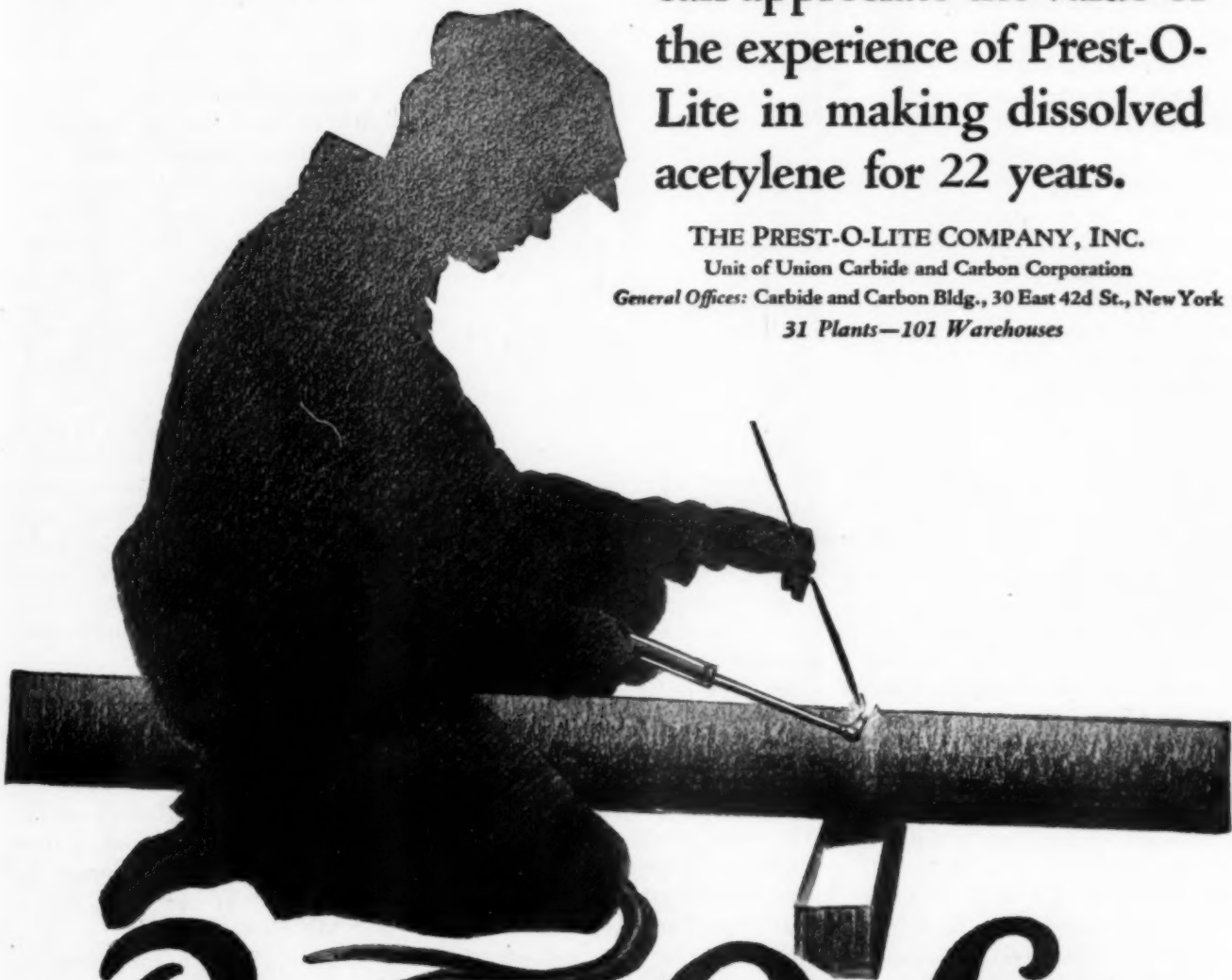
You who have had years of experience in manufacturing realize how experience is reflected in the product. Therefore you can appreciate the value of the experience of Prest-O-Lite in making dissolved acetylene for 22 years.

THE PREST-O-LITE COMPANY, INC.

Unit of Union Carbide and Carbon Corporation

General Offices: Carbide and Carbon Bldg., 30 East 42d St., New York

31 Plants—101 Warehouses



# Prest-O-Lite

## DISSOLVED ACETYLENE

Mention AMERICAN ARTISAN in your reply—Thank you!

# Carolinas-Virginia Sheet Metal Men Hold Successful Meeting at Durham

## Outstanding Accomplishments of Association Are Found to Be Many

ONE of the outstanding accomplishments of the Tri-State Association of Sheet Metal Contractors (Carolinas-Virginia) revealed at the Sixth Annual Convention was the securing of the cooperation of the Armstrong Cork Insulation Company. The convention was held at the Washington Duke Hotel, Durham, North Carolina, February 23 and 24.

The convention had an attendance of approximately eighty people, being comprised of sheet metal contractors and salesmen. The outstanding address was made by Professor Hoover of the Duke University.

The sentiment within the association is that it has accomplished considerable during the past administration of Mr. Piper, as it has secured the cooperation of the Armstrong Cork Insulation Company, who advises that a new sales policy is being developed and will go into effect about the 1st or the 15th of March; thereby they will extend protection to the roofing contractors. The assertion is "Roofing Insulation for the Roofing Contractors." The Celotex Company was well represented and also reconfirmed their original position on trade protection.

The report of the committee on metal ceiling, corrugated iron and V-crimped roofing was discussed, and the association as a whole feels that if they do not stop the items that come under this head and give the manufacturers cooperation along this line that the manufacturers will be in their rights to sell direct. The association went on record asking for protection on the members in the vicinity where the above items are carried in stock.

Another outstanding event of the convention was the adoption of a resolution by the Tri-State Association

of Roofers and Sheet Metal Contractors to be presented at the Dallas convention. This resolution is only a skeleton at the present, but will be in shape soon.

The entertainment committee consisted of W. P. Budd, chairman; W. J. Lougee and E. J. Latta, and they handled the entertainment in a very creditable way. The banquet in the evening was attended by approximately eighty people and was thoroughly enjoyed.

The resolution was passed to discontinue the publication of the Bulletin as published in the past, as the association as a whole feels that it has accomplished its mission. A new Bulletin is to be issued and published every two weeks, each officer of the association being responsible for the editorial matter and the Bulletin. If he falls down on his job as editor the Bulletin will go out with the assertion that he failed in his duty.

The advertisements in connection with this Bulletin will be paid for by the membership and every member will have a uniform size advertisement on the border of the Bulletin. The Bulletin will go to every architect, engineer, general contractor and sheet metal and roofing contractor in the three states, North and South Carolina and Virginia. The object of this is that our association shall stand and pay its own way without asking the jobbers to bear the financial burden of the Bulletin. However, our advertising section will be open to the jobbers who care to buy space.

The officers elected were as follows: President, J. H. Rawls, Baker & Rawls, Raleigh, North Carolina; vice-presidents, C. P. Tanner, Hendersonville, and Ruben Burton, Richmond, Virginia; executive secretary, George I. Ray,

G. G. Ray & Company, Charlotte, North Carolina; treasurer, C. F. Shuman, C. F. Shuman Roofing Company, Charlotte, North Carolina.

The directors are H. R. Pace, Roanoke, Virginia; R. E. Piper, Richmond, Virginia; Horace King, Wilmington, North Carolina, and A. E. Odend'Hal, Norfolk, Virginia.

### St. Louis Delegation to Dallas to Have Special Train—Invite Others to Join Them

The members of the Transportation Committee of the National Association of Sheet Metal Contractors is already busily engaged in making preparations for the transporting of sheet metal men to the national convention in Dallas, Texas, in April.

Jules Gerock, Jr., is about to send out invitations to all local secretaries in the north and east to join the St. Louis men at St. Louis and go with them on a special train which will be made up at St. Louis and will leave there at 9:05 a. m., April 24th, via the Missouri Pacific Railroad.

The invitation will urge all those men coming through St. Louis to arrive in that town a day earlier so that they will have a chance to see the city under the guidance of the St. Louis men. "St. Louis is just as wet as Chicago, even though we have no lake at our front door," said Mr. Gerock.

Anyone wishing to make reservations on the St. Louis train can get all details by writing to Jules Gerock, Jr., president of Gerock Brothers Manufacturing Company, 1252 S. Vandeventer avenue, St. Louis, Missouri.

Reservations should be made without delay so that the proper arrangements can be made.

# For Toncan Dealers Only

**Through the Years**  
**This Super-Iron Resists Rust and Corrosion**

Pure iron, scientifically combined with copper and mo-lyb-den-um, yields a resistance to rust and corrosion never attained before in a commercial iron.

**TONCAN Copper Mo-lyb-den-um Iron** is a metallurgical achievement. It makes a super-iron of Toncan—the iron that has already proved its durability through long years of service.

There are many uses for this Super-Iron. Leading architects specify Toncan Copper Mo-lyb-den-um Iron for sheet metal work, such as cornices, ventilation ducts, skylight frames, roofing, sidings and other places where long durability is the prime consideration.

In the home, Toncan is recommended for furnace, furnace piping, spouting and flashing by reliable sheet metal contractors. They have found it the most economical metal from the owner's standpoint.

For refrigerators, stoves, washing machines and other household appliances subjected to heat, cold or water, the use of Toncan Copper Mo-lyb-den-um Iron is a guarantee of long life. Oven and refrigerator linings resist rust indefinitely when made of this super-iron. And Toncan Examing Iron, the secret of its uniformity, improves the quality and length of production of all standard products.

Write for the new Toncan Book, "The Path to Permanence." It gives complete information on this Super-Iron.

**TONCAN**  
 COPPER  
 Mo-lyb-den-um  
 IRON

**CENTRAL ALLOY STEEL CORPORATION, Massillon, Ohio**

CHICAGO NEW YORK SAN FRANCISCO PHILADELPHIA CINCINNATI DETROIT CLEVELAND SYRACUSE

**ONLY** dealers of Toncan Copper Mo-lyb-den-um Iron will profit from this extensive advertising in The Saturday Evening Post. Every four weeks a Toncan advertisement appears on the page facing the inside back cover of The Saturday Evening Post telling the public of the advantages of this super-iron. This advertising

campaign means a ready acceptance of Toncan Copper Mo-lyb-den-um Iron by the purchaser and complete confidence in the sheet metal contractor who specifies it.

If you are not using and recommending Toncan Copper Mo-lyb-den-um Iron, write for complete information and tested selling helps.



**CENTRAL ALLOY STEEL CORPORATION, MASSILLON, OHIO**

Cleveland  
Syracuse

Detroit  
Philadelphia

Chicago  
Los Angeles

New York  
Tulsa

St. Louis  
Cincinnati

San Francisco  
Seattle

**WORLD'S LARGEST AND MOST HIGHLY SPECIALIZED ALLOY STEEL PRODUCERS**

When writing mention **AMERICAN ARTISAN**—Thank you!



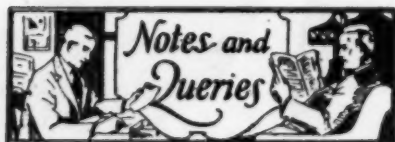
**Second Sheet Metal Course to Be Given at Ames, Iowa, March 21, 22, 23**

The second sheet metal course of Iowa Sheet Metal Contractors' Association will be given at the Iowa State College, Ames, Iowa, March 21, 22, 23, 1927.

There are no fees in connection with this course and anyone interested in sheet metal work is invited to attend the course. For further information write to the Engineering Extension Department of the Iowa State College, Ames, Iowa.

**Willis and Cadle, Copper & Brass Research, Return From European Visit**

Mr. William A. Willis, general manager, and Mr. B. B. Cadle, assistant to manager, of the Copper & Brass Research Association, have recently returned from a visit of several weeks in Europe. It is expected that Mr. Willis will have a very interesting report of his trip in the very near future.



**"Moore" Furnace**

From C. W. Howe Company, 500 South Wabash Avenue, Chicago, Illinois.

Please advise who makes the "Moore" furnace.

Ans.—Moore Brothers Company, Joliet, Illinois.

**"Stewart" Restaurant Range**

From Fife Plumbing Company, 212 Third Street, Southeast, Canton, Ohio.

Please advise who makes the "Stewart" Restaurant Range.

Ans.—Fuller-Warren Company, Milwaukee, Wisconsin.

**Robinson Ventilator**

From A. H. Hall, Mayfield, Kentucky.

Please advise who makes the Robinson Ventilator.

Ans.—Robinson Ventilating Company, Jenkins Arcade, Pittsburgh, Pennsylvania.

**Metal Stencils**

From Flesher Sheet Metal Works, 209 East 12th Street, Trenton, Missouri.

Please advise me who manufactures metal stencils.

Ans.—C. H. Hanson Company, 178 North Clark Street, and L. E. Larson, 673 W. Madison Street, both of Chicago, Illinois.

**Anaconda Flintkote Copper Clad Shingles**

From Dawsey Sheet Metal Works, Dothan, Alabama.

Please advise who makes the Anaconda Flintkote Copper Clad Shingles.

Ans.—The Flintkote Company, Boston, Massachusetts.

**Commercial Enameling**

From A. F. Rising and Son, 514 West Third Street, Texarkana, Arkansas.

Please advise names of firms who do commercial enameling after work is cut out ready for enameling.

Ans.—Miller's System Enameling Works, 1749 West Lake Street, and Universal Enameling Company, 1273 West North Avenue, both of Chicago, Illinois.

**Pinch Dogs**

From Chicago Metal Manufacturing Company, 3724 South Rockwell Street, Chicago, Illinois.

Who makes pinch dogs which are used to fasten around rivet holes of patterns?

Ans.—Oliver Machinery Company, 549 West Washington Street, Chicago, Illinois.



Indiana Fur-mets annual convention, Hotel Severin, Indianapolis, indefinitely postponed. Harry R. Jones, 308 Kenmore road, Indianapolis, Secretary.

Indiana Heating and Ventilating Association Convention, Hotel Severin, Indianapolis, indefinitely postponed. Frank E. Anderson, Terre Haute, Indiana, Secretary.

Indiana Sheet Metal Contractors' Convention, Hotel Severin, Indianapolis, indefinitely postponed. William N. Strasser, Anderson, Indiana, secretary.

Iowa Sheet Metal Convention and Short Course, Iowa State College, Ames, Iowa, March 21, 22 and 23, 1927. R. T. Northrup, Secretary, Fort Dodge, Iowa.

Sheet Metal Contractors' Association of Florida, St. Petersburg, Florida, March 28 and 29, 1927, at the Suwanee Hotel. Secretary, G. H. Leavitt, 111 Main Street, Tampa, Florida.

Sheet Metal Contractors' Association of Pennsylvania and the Distributors' and Salesmen's Auxiliary of Pennsylvania, Hotel Bethlehem, Bethlehem, Pennsylvania, April 5, 6 and 7, 1927. W. F. Angermeyer, 7253 Frankstown Avenue, Pittsburgh, Secretary. George A. Hesky, 314 Packer Avenue, Bethlehem, Chairman Convention Committee.

Illinois Sheet Metal Contractors' Association, Ottawa, Illinois, April 6 and 7, 1927. Fred J. Graeff, Secretary, 222 East Washington Street, Springfield, Illinois.

National Warm Air Heating and Ventilating Association, Hotel Cleveland, Cleveland, Ohio, April 13 and 14, 1927. Allen W. Williams, 168 East Long Street, Columbus, Ohio, Secretary.

Southeastern Retail Hardware and Implement Association, composed of Alabama, Florida, Georgia and Tennessee, Convention and Exhibition, Jacksonville, April 19, 20, 21, 1927. Walter Harlan, Secretary, 701 Grand Theater Building, Atlanta, Georgia.

Texas Sheet Metal Contractors' Association, Hotel Adolphus, Dallas, Texas, April 24 and 25. Harry Stanyer, Secretary-Treasurer, 2422 Alamo Street, Dallas.

National Association of Sheet Metal Contractors, Adolphus Hotel, Dallas, Texas, April 26, 27, 28 and 29, 1927. W. C. Markle, Secretary, 850 West North Avenue, Pittsburgh, Pennsylvania.

Arkansas Retail Hardware Association Convention, Little Rock, May, 1927. I. P. Biggs, Secretary, Little Rock.

Southern Hardware Jobbers' Association, Peabody Hotel, Memphis, Tennessee, May 10 to 13, 1927. John Donnan, Secretary, Richmond Virginia.

Old Guard Southern Hardware Salesmen's Association, Peabody Hotel, Memphis, Tennessee, May 11, 1927. R. P. Boyd, Secretary, R. F. D. No. 4, Box 19, Knoxville, Tennessee.

Mississippi Retail Hardware and Implement Association Convention and Exhibition, headquarters, White House, Biloxi, June 13, 14, 15, 1927. Buy Nason, Secretary, Columbus.

National Retail Hardware Association Congress, Mackinac Island, Michigan, June, 1927. H. P. Sheets, Secretary-Treasurer, 130 East Washington Street, Indianapolis, Indiana.

**Retail Hardware Doings**

**Arkansas**

J. C. Wood of Paragould has purchased the hardware store of Powell and Son.

**Iowa**

Davaney and Sons have opened a hardware store at Bernard.

**Minnesota**

The Albert Lea Hardware Company on East Clark Street was destroyed by fire.

Edward Fiebeiger has sold his hardware store to Joseph Siegel of the Siegel Hardware Company, Duluth.

**Missouri**

The Del Galle Hardware Company, Missouri City, was damaged by fire.

**Nebraska**

C. B. Dalton has purchased the Concklin interest in the old firm of Irwin and Concklin at Bertrand.

Ernest Magdanz has purchased the hardware business of E. W. Pitts, at Pierce.

Callahan Brothers, Hardware Dealers, will open a branch at Beatrice.

**Wisconsin**

H. W. Long has purchased the hardware business of J. G. Butzer, 999 Third Street, Milwaukee.



**DOUBLY  
DURABLE**  
*because*  
**DOUBLY  
PROTECTED**

—  
**Hand-Dipped  
in Pure Molten Zinc  
After Forming**

**W**HEELING Hand-Dipped Conductor Pipe is doubly durable, which accounts for its lasting economy.

**1** The base metal is the highly rust-resistant Copper Alloy, known everywhere as OHIO METAL.

**2** The conductor is completely formed and finally hand-dipped in pure molten zinc.

**R**UST-RESISTING metal completely imbedded in a thick, impenetrable, protective coating of pure zinc provides durability that is easily understood.

Seams, edges and surfaces are thoroughly and uniformly covered by a tightly adhering coating which only hand-dipping after forming makes possible.

Exposed to the air, the zinc first protects itself by a natural surface oxidization. This ceases abruptly after closing the pores of the zinc and a lasting barrier to the elements is the result.

Made of Ohio Metal, hand-dipped in pure molten zinc, Wheeling Conductor Pipe is stronger, more rigid and doubly durable.

*Specify Wheeling Hand-Dipped for lasting economy. A sample for examination will be sent postpaid upon request.*

# Wheeling

## HAND-DIPPED CONDUCTOR

Wheeling Corrugating Company, Wheeling, W. Va.

NEW YORK  
ST. LOUIS

PHILADELPHIA  
RICHMOND

CHICAGO  
CHATTANOOGA

KANSAS CITY  
MINNEAPOLIS

# First Part of March Indicates Upward Trend in Steel Market

## Stronger Price Situation Prevails in Pig Iron Market—Buying Is Light in Nonferrous Metals

**S**TEEL ingot production in February registered an increase over January that is slightly higher than the 5 per cent gain reported last week in pig iron.

On a daily average basis, February output of steel was 155,232 tons, compared with 146,419 tons in January and 158,407 tons in February, 1926. The month's total of 3,725,577 tons falls just short both of the 3,806,888 tons produced in January and the 3,801,776 tons in February a year ago.

February is appraised as an 86.5 per cent steel month. This compares with a rating of 81.5 per cent for January and 88.2 per cent for last February. Barring October, February is revealed as the best production month since last April. Should the February rate of gain be maintained this month, March would fall about one point short of the 92.6 per cent gait which set a new high record for all time last March.

The trend thus far in the month has been upward. Steel corporation subsidiaries now operating at 95 per cent and the entire steel industry apparently close to 88 per cent.

### Pig Iron

The pig iron situation at Pittsburgh is changing rapidly to a stronger basis, prices 50 cents higher than a week ago now applying on some grades.

Bessemer iron is selling in small lots at \$19.50. Inquiries for 200 and 500 tons were turned down when users offered to pay \$19. Basic iron is scarce. A buyer taking several thousand tons two weeks ago at \$18, valley, now finds \$18.50 is minimum and only small lots available. Where sellers are willing to accept a 5000-ton order \$19 is named.

One nearby sheetmaker paid

\$18.50, valley, to a broker having a limited stock. One Pittsburgh district steel-works furnace is retaining all its iron, as it is about to blow out a large furnace for repairs. Another Pennsylvania steel-works is maintaining a minimum price of \$18.50.

No foundry or malleable iron is available below \$18.50 valley. Some makers have advanced their price to \$19, although no sales at that price are noted.

At Chicago a heavy aggregate tonnage of northern iron for second quarter is being sold in a quiet buying movement. It is estimated 35,000 to 50,000 tons was booked in the past ten days. Probably 50 per cent of second quarter iron has been sold.

A Chicago melter placed 5,000 tons of foundry iron, and another sale of 3,000 tons is reported, the latter at \$20, base, furnace. This quotation is firm in the Chicago district and nearby points. Furnaces meet competition at lower levels in neutral freight territory, but \$20 is firmer than a week ago.

At Birmingham the policy of hand-to-mouth buying of pig iron again is noticeable, sales from week to week not exceeding output. Quotations are firm at \$18, base, Birmingham, \$19 being asked on small lots for quick delivery.

### Copper

Several copper producers have been asking 13.50 cents, delivered Connecticut, the past few days. But limited supplies have been available  $\frac{1}{8}$ -cent less and have made the market with demand light. Mid-western asking prices ran from 13.50 cents to 13.75 cents, depending on location and other factors.

Curtailment of production is another influence in the market situation, and has reached probably more than 6,000 tons a month, or at least

equal to the average increase in stocks over the past several months.

### Zinc

Buying of prime western zinc in the past week has been light but the price has held fairly steady although a little easy at times. Firmness of the ore market at \$45 is important. Galvanizers are thought not well covered.

### Tin

Tin has been erratic lately but remains relatively high. The edge was taken off of a rising market, however, by estimates that supplies from the Straits settlements would be more liberal this month and probably in later months as well, than in the past few months.

March arrival metal is quoted about  $\frac{1}{4}$ -cent under spot and subsequent months 1 cent off on each position.

### Lead

Consumption of lead is more active and prices firm after the recent rise, in which one concern went from 7.40 cents to 7.65 cents New York. There is less talk current about premium prices in the open market.

### Solder

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$43.50; commercial 45-55, \$40.50; and plumbers', \$37.50, all per 100 pounds.

### Old Metals

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$17.00 to \$17.50; old iron axles, \$22.00 to \$22.50; steel springs, \$16.00 to \$16.50; No. 1 wrought iron, \$11.75 to \$12.25; No. 1 cast, \$15.50 to \$16.00, all per net tons. Prices for non-ferrous metals are quoted as follows, per pounds: Light copper, 9 cents; zinc,  $4\frac{1}{2}$  cents, and cast aluminum, 15 cents.





## a guarantee

Among sheet metal men, the name "Lupton" on an elbow has meant quality for many years. Lupton Elbows have always met the most exacting requirements.

As a guarantee of perfect and uniform fit, good heavy materials, and clean galvanizing, be sure you find that name "Lupton" on the next elbows you use.

*Specify them to your jobber*

**DAVID LUPTON'S SONS CO.**

ALLEGHENY AVE. & TULIP ST., PHILADELPHIA

# Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

## METALS

### FIG IRON

Chicago Fdy., No. 2.....	\$20 00
Southern Fdy., No. 2.....	24 01
Lake Superior Charcoal.....	27 04
Malleable.....	20 00

### FIRST QUALITY BRIGHT

#### TIN PLATES

IC 20x28 112 sheets.....	\$25 10
IX 20x28.....	29 60
IXX 20x28 56 sheets.....	16 20
IXXX 20x28.....	17 55
IXXXX 20x28.....	18 95

#### TERNE PLATES

IC 20x28, 40-lb. 112 sheets	Per Box \$26 00
IX 20x28, 40-lb. 112 sheets	28 50
IC 20x28, 35-lb. 112 sheets	21 75
IX 20x28, 35-lb. 112 sheets	24 25
IC 20x28, 20-lb. 112 sheets	20 00
IX 20x28, 20-lb. 112 sheets	22 50
IC 20x28, 15-lb. 112 sheets	18 50

### "ARMCO" INGOT IRON PLATES

No. 8 ga. up to and including	
1/4 in.—100 lbs.	\$4 55

#### COKE PLATES

Cokes, 80 lbs., base, 20x28.	\$13 60
Cokes, 90 lbs., base, 20x28.	13 80
Cokes, 100 lbs., base, 20x28.	14 00
Cokes, 107 lbs., base, 1c	
20x28	14 30
Cokes, 155 lbs., base IX	
20x28	16 40
Cokes, 155 lbs., base, 56	
sheets	9 20
Cokes, 175 lbs., base, 56	
sheets	10 05
Cokes, 195 lbs., base, 56	
sheets	10 90

### BLUE ANNEALED SHEETS

Base 10 ga.....	per 100 lbs. \$2 80
"Armco" 10 ga.....	per 100 lbs. 4 00

### ONE PASS COLD ROLLED

#### BLACK

No. 18-20.....	per 100 lbs. \$3 75
No. 22.....	per 100 lbs. 3 90
No. 24.....	per 100 lbs. 3 95
No. 26.....	per 100 lbs. 4 05
No. 27.....	per 100 lbs. 4 10
No. 28.....	per 100 lbs. 4 20
No. 29.....	per 100 lbs. 4 35
No. 30.....	per 100 lbs. 4 45

### "ARMCO" GALVANIZED

"Armco" 24.....	per 100 lbs. \$6 25
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#### GALVANIZED

No. 16.....	per 100 lbs. \$4 20
No. 18.....	per 100 lbs. 4 45
No. 20.....	per 100 lbs. 4 60
No. 22.....	per 100 lbs. 4 65
No. 24.....	per 100 lbs. 4 80
No. 26.....	per 100 lbs. 5 05
No. 27.....	per 100 lbs. 5 15
No. 28.....	per 100 lbs. 5 30
No. 30.....	per 100 lbs. 5 70

#### BAR SOLDER

Warranted 50-50.....	per 100 lbs. \$43 50
Commercial 45-55.....	per 100 lbs. 40 50
Plumbers.....	per 100 lbs. 37 50

#### ZINC

In Slabs.....	\$8 50
---------------	--------

#### SHEET ZINC

Cash Lots (600 lbs.).....	\$13 00
Sheet Lots.....	14 00

#### BRASS

Sheets, Chicago base.....	18 1/4 c
Mill Base.....	18 1/4 c
Tubing, brazed base.....	27 1/4 c
Wire, base.....	19 1/4 c
Rods, base.....	16 1/4 c

#### COPPER

Sheets, Chicago base.....	22 c
Mill Base.....	21 c
Tubing, seamless base.....	25 c
Wire, No. 9, B & S Ga.....	18 1/4 c
Wire, No. 10, B & S Ga.....	18 1/4 c
Wire, No. 11, B & S Ga.....	19 c
Wire, No. 8, B & S Ga. and heavier.....	17 1/4 c

## LEAD.

American Pig.....	\$ 8 50
Bar.....	9 50

### Sheet

Full Coils.....	per 100 lbs. 14 00
Cut Coils.....	per 100 lbs. 14 25

## TIN

Pig tin.....	per 100 lbs. \$77 00
Bar tin.....	per 100 lbs. 78 00

## HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

### ASBESTOS

Paper up to 1/16.....	6c per lb.
Roll board.....	6 1/4 c per lb.
Mill board 3/32 to 1/4.....	6c per lb.
Corrugated Paper (250 sq. ft. to roll).....	\$6.00 per roll

### BRUSHES

Hot Air Pipe Cleaning	
Bristle, with handle, each	\$0 85

### Flue Cleaning

Steel only, each.....	1 25
-----------------------	------

### BURRS

Copper Burrs only.....	40-50%
------------------------	--------

### CEMENT, FURNACE

American Seal, 5-lb. cans, net	\$ 40
American Seal, 10-lb. cans, net	80
American Seal, 25-lb. cans, net	2 00
Pecora.....	per 100 lbs. 7 51

### CHIMNEY TOPS

Iwan's Complete Rev. & Vent.....	30%
Iwan's Iron Mountain only.....	35%
Standard.....	30 to 40%

### CLINKER TONGS

Front Rank, each.....	\$0 75
Per doz.....	8 40

### CLIPS

Damper	
Acme, with all tail pieces, per doz.....	\$1 25
Non Rivet tail pieces, per doz.....	25

### COPPERS—Soldering Pointed Roofing

3 lb. and heavier.....	per lb. 40c
2 1/2 lb. ....	per lb. 45c
2 lb. ....	per lb. 45c
1 1/2 lb. ....	per lb. 55c
1 lb. ....	per lb. 60c

### CORNICE BRAKES

Chicago Steel Bending	
Nos. 1 to 6B.....	Net

### CUT-OFFS

Gal. plain, round or cor. rd. standard gauge.....	40%
26 gauge.....	30%

### DAMPERS

"Yankee" Hot Air	
7 inch, each 20c, doz.....	\$1 75
8 inch, each 25c, doz.....	2 40
9 inch, each 30c, doz.....	2 75
10 inch, each 32c, doz.....	3 00

### Smoke Pipe

7 inch, each.....	\$0 25
8 inch, each.....	40
9 inch, each.....	50
10 inch, each.....	60
12 inch, each.....	90

### Reversible Check

8 inch, each.....	\$1 50
9 inch, each.....	1 70

## DIGGERS

### Post Hole

Iwan's Split Handle (Eureka)	
4-ft. Handle.....	per doz. \$14 00
7-ft. Handle.....	per doz. 36 00
Iwan's Hercules pattern, per doz.....	14 90

### EAVES TROUGH

Galv. Crimpedge, crated 75 & 5%	
Zinc, "Barnes".....	60%

### ELBOWS

Conductor Pipe	
Galv., plain or corrugated, round flat Crimp.	
28 Gauge.....	60%
26 Gauge.....	45%
24 Gauge.....	15%

### Galv. & Terne Steel

Plain Rd. and Rd. Corr.:	
28 Ga. ....	60%
26 Ga. ....	45%
24 Ga. ....	15%

### Square Corrugated

No. 28 Gauge.....	50%
26 Gauge.....	35%

### Portico Elbows

Standard Gauge Conductor Pipe, plain or corrugated.	
Not nested.....	70 & 5%
Nested solid.....	70 & 5%

### Sq. Corr., A. & B. & Octagon:

28 Ga. ....	50%
26 Ga. ....	35%

### Portico

1", 1 1/4", 1 1/2".....	45%
-------------------------	-----

### Copper

16 oz., all designs.....	45%
--------------------------	-----

### Zinc—

All styles.....	60%
-----------------	-----

### ELBOWS—Stove Pipe

1-piece Corrugated, Uniform Blue "Milcor" No. 28 Gauge.	Doz. \$1 25
5-inch.....	1 25
6-inch.....	1 35
7-inch.....	1 75

### Special Corrugated

6-inch.....	\$1 00
7-inch.....	1 60

### Adjustable—Uniform Blue

"Milcor" No. 28 Gauge. Uniform Blue.	
5-inch.....	\$1 75
6-inch.....	1 85
7-inch.....	2 15

### WOOD FACES—50% off list.

726-6-12 1/4% (100 rods).....	\$28 68
1948-6-14 1/4% (100 rods).....	42 62

### FILES AND RASPS

Heller's (American).....	50-10%
American.....	50-10%
Arcade.....	50%
Black Diamond.....	40-10-5%
Eagle.....	50%
Great Western.....	50%
Kearney & Foot.....	50%
McClellan.....	50%
Nicholson.....	55%
Simonds.....	60%

### FIRE POTS

Clayton & Lambert's	
East of west boundary line of Province of Manitoba, Canada, No. Dakota, So. Dakota, Nebraska, Kansas, Oklahoma, Arizona, San Angelo and Laredo, Texas.....	52%
West of above boundary.....	48%

## Geo. W. Diener Mfg. Co. Ea.

No. 02 Gasolene Torch, 1 qt. ....	\$ 5 55
No. 0250, Kerosene, or Gasolene Torch, 1 qt. ....	7 50
No. 10 Tinner's Furn. Square tank, 1 gal. ....	12 60
No. 15 Tinner's Furn. Round tank, 1 gal. ....	12 00
No. 21 Gas Soldering Furnace.....	3 60
No. 110 Automatic Gas Soldering Furnace.....	10 50

### Double Blast Mfg. Co.

Gasolene, Nos. 25 and 36.....	60%
-------------------------------	-----

### Quick Meal Stove Co.

Vesuvius, F. O. B. St. Louis	30%
(Extra Disc't. for large quantities)	

### GALVANIZED WARE

Pails (Galv. after made), 10-qt. ....	\$2 12
Tubs (Galv. after made), No. 1.....	6 00
No. 2.....	6 85

### GLASS

Single Strength, A. 25-in. brackets.....	87%
Single Strength, A. 34 to 40-in. bracket.....	86%
Single Strength, A. all other brackets.....	86%
Double Strength, A. all sizes.....	86%

### HANGERS

Conductor Pipe	
Milcor Perfection Wire.....	25%
Eaves Trough	
Milcor Eclipse Wire.....	15%
Milcor Triplex Wire.....	10%
Milcor Milwaukee Extension	10%
Milcor Steel (galv. after forming) List.....	plus 12 1/2%
Milcor Selflock E. T. Wire, List.....	plus 50%

### HOOKS

Box V. & B. No. 1, each.....	\$0 26
------------------------------	--------

### Conductor

"Direct Drive" Wrought Iron for wood or brick.....	15%
Hay V. & B. No. 1, each.....	\$0 26

### HUMIDIFIERS

"Front-Rank," Automatic	
In single lots.....	50%
In lots of 10 or more.....	50-5%
In lots of 25 or more.....	50-10%
Vapor pans, etc., each.....	50%

### LIFTERS

Stove Cover	
Coppered.....	per gro. \$6 00
Alaska.....	per gro. 4 75

### MAILLETS

Tinner's Hickory.....	per doz. \$2 25
-----------------------	-----------------

### MITRES


Galvanized steel mitres, 28 Ga. ....	70
26 Ga. ....	60-20

### NAILS

Cut Steel.....	\$4 35
Cut Iron.....	4 35
Wire	
Common.....	3 05
Cement Coated.....	3 05

(Continued on page 96)

**DURABLE ALL THE WAY THROUGH**



*A few uses for*  
**INLAND COPPER ALLOY  
 STEEL SHEETS**

**At the Service of Steel Users**

**INLAND STEEL COMPANY**  
 38 South Dearborn Street, Chicago  
 Works: Indiana Harbor, Indiana; Milwaukee, Wisconsin;  
 Chicago Heights, Illinois.  
 Branch Offices and Representatives  
 ST. PAUL • ST. LOUIS • SALT LAKE CITY • MILWAUKEE  
 KANSAS CITY • NEW ORLEANS • EL PASO

HERBERT JOSEPH

**OSBORN'S  
 LEAD COTE**

It has the flexible strength of steel.

It has the rust-resisting qualities of lead.

It lends itself to artistic development.

It is a durable and economical sheet metal.

It is uniformly soft and level—easy to work.

Its coating will not flake or peel.

Immediate shipment from stock—No. 18 to 28 gauges.

**The J. M. & L. A. OSBORN CO.**  
*"Everything used in Sheet Metal Work"*  
 CLEVELAND  
 Buffalo Warehouse 64-68 Rapin Street

**Get the Roofing Job Too!**

*it's ten times bigger than the spouting and flashing job*



**H**OUSES can't be built without ridge roll, flashing, eaves trough and down spout—there's no better material than Leadclad for this purpose.

But while you are figuring on the metal work, why not sell them a Leadclad Decorative Shingle or Spanish Tile Roof, too—it's right in your line.

A Leadclad Roof is fireproof and lightning proof. It does not exude acids which will destroy the spouting and eaves. A Leadclad Roof is the modern adaptation of the solid lead slab roofs of ancient days which protected buildings for centuries without renewing.

Leadclad Decorative Shingles and Tile are packed in convenient boxes containing enough to cover one square. They are light and easy to put on—no soldering. Just lock them together and nail. The specially constructed side lock makes a strong, weathertight job.

Get the roofing job too!—it's ten times bigger than the rest of the metal work.

Leadclad Decorative Shingles and Tile are now being advertised nationally to millions of home builders. You'll find them easy to sell.

The metal work on an ordinary house usually consists of the ridge roll, valleys, flashing, eaves trough and conductor pipe—or what is shown in white on the above illustration. The roof is a far bigger job—why not get that too!

**WHEELING  
 METAL & MFG. CO.**  
 WHEELING, W. VA.

Check Products you are particularly interested in and mail with coupon.

☐ Shingles ☐ Siding ☐ Roll  
☐ Tile ☐ Eavestrough ☐ Sheets

Name .....

Address .....



**LEADCLAD**  
 REG. U.S. PAT. OFFICE 1923

SHEET STEEL COATED WITH PURE LEAD



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NETTING, POULTRY	
Galvanized before weav-	—
ing .....	57 1/4-5%
Galvanized after weaving.	52 1/4-5%

PASTE	
Asbestos Dry Paste:	
200-lb. barrel .....	\$16 00
100-lb. barrel .....	8 75
35-lb. pail .....	3 50
10-lb. bag .....	1 10
5-lb. bag .....	60
2 1/2-lb. cartons .....	35

PIPE	
Conductor	
Cor. Rd., Plain Rd. or Sq.	—

Galvanized	
Crated and nested (all gauges) .....	75-2 1/2%
Crated and not nested (all gauges) .....	70-15%

Furnace Pipe	
Double Wall Pipe and Fittings .....	50%
Single Wall Pipe, Round .....	50%
Galvanized Pipe .....	50%
Galvanized and Tin Fittings .....	50%

Lead	
Per 100 lbs. ....	\$12 50

Stove Pipe		
"Milcor"	"Titelock"	Uniform
Blue Stove		
28 gauge, 5 inch U. C. ....		11 50
28 gauge, 6 inch U. C. ....		12 25
28 gauge, 7 inch U. C. ....		14 25
30 gauge, 5 inch U. C. ....		10 50
30 gauge, 6 inch U. C. ....		11 25
30 gauge, 7 inch U. C. ....		13 25

T-Joint Made up	
6-inch, 28 ga. ....	Per Doz. \$ 5 00

All Zinc	
No. 11, all styles .....	60%

POKERS, STOVE	
W'r't Steel, str't or bent, .....	per doz. \$0 75
Nickel Plated, coil handles, .....	per doz. 1 10

POKERS, FURNACE	
Each .....	\$0 50

PULLEYS	
Furnace Tackle .....	per doz. \$0 60
.....per gro. ....	6 00
Furnace Screw (enameled) .....	per doz. 75

Ventilating Register	
Per gross .....	9 00
Small, per pair .....	30
Large, per pair .....	50

PUTTY	
Commercial Putty, 100-lb. ....	—
Kits .....	\$3 40

QUADRANTS	
Malleable Iron Damper .....	10%

REDUCERS—Oval Stove Pipe	
.....Per Doz. ....	—
7-6, 1 doz. in carton .....	\$2 25

BASEBOARD REGISTERS	
.....	50%

FLOOR REGISTERS AND BORDERS	
Cast Iron .....	20%
Steel and Semi-Steel .....	40%
Baseboard .....	40%
Adjustable Ceiling .....	40%
Ventilators .....	40%

Register Faces—Cast and Steel	
Japanned, Bronzed and Plated, 4x6 to 14x14 .....	40%
Large Register Faces—Cast, 14x14 to 38x42 .....	60%
Large Register Faces—Steel, 14x14 to 38x42 .....	65%

RIDGE ROLL	
Galv., Plain Ridge Roll, b'd'd .....	75-10-5%
Galv., Plain Ridge Roll, crated .....	75-10%
Globe Finials for Ridge Roll .....	50%

ROOFING	
Best grade, slate surf. prep'd \$2 30	—
Best talc surfaced .....	2 50
Medium talc surfaced .....	2 00
Light talc surfaced .....	1 20
Red Rosin Sheeting, per ton	57 00

SCREWS	
Sheet Metal	
7, 1/2x1/4, per gross .....	\$0 52
No. 10, 3/4x1/8, per gross ..	68
No. 14, 1/2x1/4, per gross ..	83

SHEARS, TINNERS' & MACHINISTS'	
Viking .....	\$22 00

Lennox Throatless	
No. 18 .....	35%
Shear blades .....	10%
(f. o. b. Marshalltown, Iowa.)	—

SHIELDS, REGISTER	
No. 1 "Gem," floor ....	\$12 00 doz.
No. 2 "Gem" wall ....	6 00 doz.

SHOES	
Galv. 28 Gauge, Plain or corg. round flat crimp .....	60%
26 gauge round flat crimp .....	45%
24 gauge round flat crimp .....	15%

SNIPS, TINNERS'	
Clover Leaf .....	40 & 10%
National .....	40 & 10%
Star .....	50%
Milcor .....	Net

SQUARES	
Steel and Iron .....	Net
(Add for bluing, \$3 per doz. net)	—

Mitre	
.....	Net
Try	
.....	Net
Try and Bevel	
.....	Net
Try and Mitre	
.....	Net

Fox's .....	per doz. \$6 00
Winterbottom's .....	10%

STOPPERS, FLUE	
Common .....	per doz. \$1 10
Gem, No. 1 .....	per doz. 1 10
Gem, flat, No. 3 .....	per doz. 1 00

VENTILATORS	
Standard .....	30 to 40%

WIRE	
Plain annealed wire, No. 8,	
per 100 lbs. ....	\$3 05
Galvanized barb wire, per 100 lbs. ....	3 90
Wire cloth—Black painted, 12-mesh, per 100 sq. ft. ....	1 65
Cattle Wire—galvanized catch weight spool, per 100 lbs. ....	3 75
Galvanized Hog Wire, 80 rod spool, per spool .....	3 25
Galvanized plain wire, No. 9, per 100 lbs. ....	3 50
Stove Pipe, per stone .....	1 10

WRINGERS	
No. 790, Guarantee .....	each \$ 5 10
No. 770, Bicycle .....	each 4 70
No. 670, Domestic .....	each 4 35
No. 110, Brighton .....	each 3 70
No. 750, Guarantee .....	each 5 10
No. 740, Bicycle .....	each 4 70
No. 22, Pioneer .....	each 3 40
No. 2, Superb .....	each 2 65



No. 32 Torch  
Ask for latest price

## Mechanics Prefer No. 32 Torch

It is up-to-date—has every improvement known. Its powerful generator produces a large volume of intensely hot flame that is under perfect control of the operator. The No. 32 is STRONG—DURABLE—EFFICIENT—ECONOMICAL—DEPENDABLE AND ABSOLUTELY SAFE. We warrant it to please you. Your nearest jobber will supply at Factory Price.

**CLAYTON & LAMBERT MFG. CO.**  
6281 Beaubien St. DETROIT, MICH.

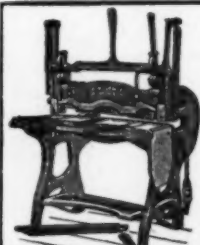
## CHICAGO STEEL CORNICE BRAKES STANDARD OF THE WORLD



THE BEST BRAKE FOR ALL PURPOSES: Most Durable, Easiest Operated, Low in Price; Made in All Lengths and to Bend All Gauges of Metal. Over 23,000 in use.

WRITE FOR  
PARTICULARS

DREIS & KRUMP MFG. CO., 7404 Loomis Street, CHICAGO



## TREADLE SHEAR

This TREADLE GAP SHEAR is made in all standard sizes for No. 14 and lighter gauge sheets. With it, sheets can be squared, trimmed or slit.

We make a complete line of shears, punches and bending rolls, all sizes for hand or belt drive. Write for Catalog "S."

**BERTSCH & COMPANY** Cambridge City, Ind.

# \$100.00

in cash prizes

The

## TRAVELLERS' AUXILIARY

to the

### SHEET METAL CONTRACTORS' ASSOCIATION OF ILLINOIS

## Window Display Competition

ENTRIES MUST REACH THE SECRETARY BY MARCH 31.

Full details on request—Write Today.

Etta Cohn, Secretary, 620 S. Michigan Ave., Chicago, Ill.

## Whitney Lever Punches

Widest known—Most universally used



Skyline Punch

### NEW SKYLIGHT CLOSE CORNER FLANGE PUNCH



Skyline Punch

Every Sheet Metal Worker Needs One.

Weights Only 10 Lbs.

1-2 Inch Opening Above Die Top.

EASIEST OPERATED  
QUICKEST CHANGED  
FREQUENTLY PAY FOR THEMSELVES  
ON FIRST JOB

Over 40,000 In Use



Channel Iron Punch

MADE IN 8 SIZES AND TYPES

OTHERS FOLLOWING



No. 2 Punch

ASK YOUR JOBBER

OR

Write us, for circulars  
and prices.

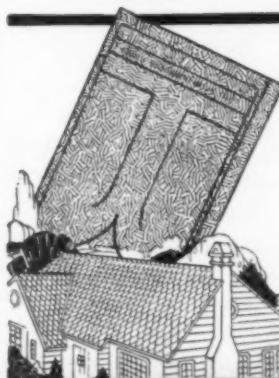
**W. A. Whitney  
Mfg. Co.**

715 Park Ave.,  
ROCKFORD, ILL.

No. 4 Tinner's Punch



No. 8 Punch



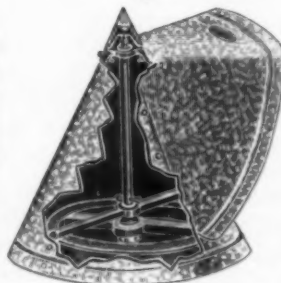
Painted Shingles—also two  
kinds of Galvanized Shingles

ALL Cortright Metal Shingles come in four patterns. The painted shingles can be had either red or green. Cortright Hand Dipped Galvanized Shingles are stamped from prime roofing tin and dipped separately by hand in molten zinc. Our other shingles are stamped from sheets already galvanized.

**CORTRIGHT METAL ROOFING CO.**  
50 N. 23rd Street, Philadelphia  
526 S. Clark Street, Chicago

## CORTRIGHT METAL SHINGLES

## The NEW IMPROVED "STANDARD" Rotable Ventilator



Patents pending

This favorite cone-shaped ventilator is now improved in several important points.

The weight of the ventilator body is now carried on a concave thrust bearing nested in the apex of the conical body. This bearing turns upon the pivot point of the stationary center spindle.

The bronze Guide Bushings are now made of non-corrosive bronze which minimizes friction and any tendency to screech when body is rotating.

There are other new features. Write today for new catalog and price list.

**STANDARD VENTILATOR CO.,**

**LEWISBURG, PA.**

# BUYERS' DIRECTORY

**Acetylene (Gas) Dissolved.**  
Prest-O-Lite Co., Inc.,  
New York, N. Y.

**Asbestos Paper.**  
Sall Mountain Co., Chicago, Ill.  
**Asbestos Products.**  
Sall Mountain Co., Chicago, Ill.

**Bale Ties.**  
American Steel & Wire Co.,  
Chicago, Ill.

**Blowers.**  
Sturtevant Co., B. F., Boston, Mass.

**Bolts—Stove.**  
The Kirk-Latty Co., Cleveland, Ohio

**Lamson & Sessions Co.,**  
Cleveland, Ohio

**Brakes—Bending.**  
Dreis & Krump Mfg. Co.,  
Chicago, Ill.

**Brakes—Cornice.**  
Dreis & Krump Mfg. Co.,  
Chicago, Ill.

**Brass and Copper.**  
Copper & Brass Research As-  
sociation, New York

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Milwaukee, Wis.

**Wheeling Corrugating Co.,**  
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Fanner Mfg. Co., Cleveland, Ohio

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S. O. Sapp, Tallula, Ill.

**Standard Ventilator Co.,**  
Lewisburg, Pa.

**Cleaners—Furnace.**  
Sturtevant Co., B. F., Boston, Mass.

**Cleaners—Suction.**  
Sturtevant Co., B. F., Boston, Mass.

**Clinker Tongs.**  
L. J. Mueller Furnace Co.,  
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**Coal Chutes.**  
Majestic Co., The, Huntington, Ind.

**Copper.**  
Copper & Brass Research As-  
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**Cornices.**  
Friedley-Voshardt Co.,  
Chicago, Ill.

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Milwaukee, Wis.

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Milwaukee Corrugating Co.,  
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**Damper Clips.**  
S. M. Howes Co.,  
Charlestown, Mass.

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Asolus-Dickinson Co.,  
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**Eaglesfield Ventilator Co.,**  
Indianapolis, Ind.

**Milwaukee Corrugating Co.,**  
Milwaukee, Wis.

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Chicago, Ill.

**Flue Thimbles.**  
Milwaukee Corrugating Co.,  
Milwaukee, Wis.

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Chicago, Ill.

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**A. H. Robinson Company,**  
Cleveland, Ohio

**Sturtevant Co., B. F., Boston, Mass.**

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Cleveland, Ohio

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Milwaukee, Wis.

**Walworth Run Fdy. Co.,**  
Cleveland, Ohio

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Brillion, Wis.

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Chicago, Ill.

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Monroe, Mich.

**Forest City Fdy. & Mfg. Co.,**  
Cleveland, Ohio

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**Hess-Snyder Co., Massillon, Ohio**

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**Meyer Furnace Co., The,**  
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**Thatcher Co.,**  
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**Robinson Furnace Co.,**  
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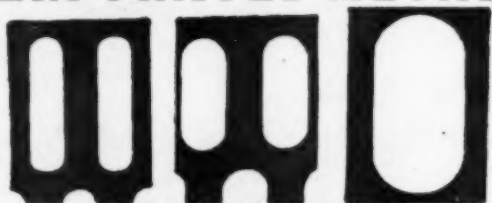
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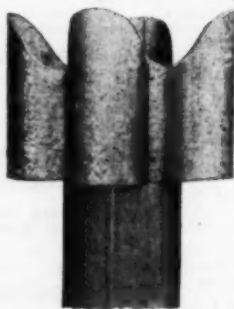
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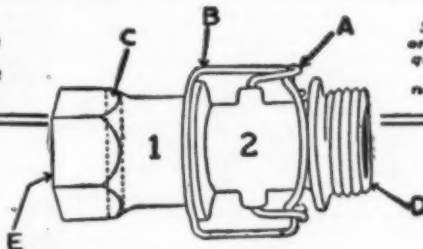
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Quick Meal Stove Co.,  
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Kernchen Co.,  
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Lupton's Sons Co., David,  
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Milwaukee Corrugating Co.,  
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- Ventilators—Ceiling.**  
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When writing mention AMERICAN ARTISAN—Thank you!



## WANTS AND SALES

Any yearly subscriber to **AMERICAN ARTISAN** may insert advertisements of not more than fifty words in our Want and Sales Columns **WITHOUT CHARGE**.

Such advertisements, however, must be limited to help or situation wanted, tools or equipment for sale, to exchange or to buy, business for sale or location desired.

## BUSINESS CHANCES

**Lightning Rods**—Dealers who are selling Lightning Protection will make money by writing us for our latest Factory to Dealer Prices. We employ no salesmen and save you all overhead charges. Our Pure Copper Cable and Fixtures are endorsed by the National Board of Fire Underwriters and hundreds of dealers. Write today for samples and prices. L. K. Diddle Company, Marshfield, Wisconsin.

**For Sale**—We are discontinuing our sheet metal shop and offer this exceptional opportunity in Chicago's best business suburb. Complete, old-established sheet metal shop has been operated in connection with Evanston's oldest hardware store for 17 years. Does a fine class of new work as well as jobbing in a large territory. Buyer must continue as a union shop and must be a first class mechanic and estimator. Good immediate business in sight. For further particulars address North Shore Hardware Co., Evanston, Ill. 10-11.

**For Sale**—Heating, plumbing and sheet metal business in eastern South Dakota doing a \$15,000 to \$25,000 business yearly. This is the only heating, plumbing and sheet metal business in the city of 1,500 population and also the only one in the county. Six good little towns in the county to draw from. Very small amount of money needed to take the business. If interested write C-74, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-31

**For Sale**—Old established sheet metal and furnace business in western territory. Manufacturing and shop equipment first class. Jobbing agency for high grade lines of warm air furnaces and registers. Owner's health requires quick sale. Address—C-66, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31.

**For Sale**—Sheet metal shop with tools, except brake. Agency for leading furnace. Good town; fine farming county. Ill health cause of selling. Present invoice of stock and tools, \$1,600; first \$1,200 cash will buy it. Good location and reasonable rent. Address C-75, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-31

**For Sale**—Sheet metal roofing shop with 4-foot and 8-foot brakes, roller bending, crimping and heavy shears, also plenty other machines and tools; delivery car with good business. For sale very reasonable if sold at once. Reason for selling, other business. Address 1211 Hastings, Detroit, Michigan. 11-31

**For Sale**—Established sheet metal and furnace business in prosperous Ohio town of 30,000. Can be bought at inventory value of stock and tools. Other business interests force owner to sell. Address—C-59, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-31

**For Sale**—Nice small property, furnace heat, 50 ft. lot, garage, and complete sheet metal workshop. Plenty of work guaranteed by U. S. Patents, two more being applied for. Can be used in every home. Good investment for right man. Cheap. 1516 S. Euclid Avenue, Berwyn, Illinois. 10-31.

## BUSINESS CHANCES

**For Sale**—Plumbing, heating and electrical business, in good Indiana town. 15,000 population. Established over 30 years. Made money and want to retire. Address—C-57, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-31

**For Sale**—Plumbing, heating, sheet metal, electrical and repair shop. Inventory \$1,900.00. Year's business \$7,500.00. Good business. Can show books. Fine climate. Rent \$25.00 per month. Will sell cheap. Address J. J. Harris, Ontonagon, Michigan. 9-31

**For Sale**—Sheet metal shop, including full set of tools. Only shop in town of 1,200. Old established business. Good territory. A paying proposition. Address C-76, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-31

## HELP WANTED

**Wanted**—At once, combination plumber and tinner for a country town of about 900. One who is willing to work the year around. No other need apply. This is a combination shop in connection with a hardware store. Married man preferred. State wages in first letter. Address—C-67, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31.

**Wanted**—At once, a combination plumber and tinner; one who is willing to work and can do his work right. I have a steady position for this man. We work ten hours per day. State wages in first letter. Address C-77, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-31

**Wanted**—Sheet metal worker and furnace man, one who understands square duct work for ventilation. Can give a steady position the year around. Please state wages wanted and your qualifications and how soon you can come, in first letter. Address Noble Sheet Metal Works, Rhinelander, Wisconsin. 11-31

**Wanted**—Salesmen. One city salesman, also one country salesman. Interview by appointment only. Write or telephone. Wheeling Corrugating Company, 2547 Arthington St., Chicago, Illinois. 9-31

**Wanted**—Plumber and steamfitter. Must be good on new and repair work. Address—C-58, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-31

## SITUATION WANTED

**Situation Wanted**—By sheet metal worker who can do plumbing and furnace work. 20 years' experience. Married and want steady work. Was employed at last place 4 years. Can give the best of references. Address—J. J. Martin, 1712 South Moniteau, Sedalia, Missouri. 10-31.

**Situation Wanted**—By first class tinner and furnace man. Can do inside and outside work. 25 years at the trade. Nothing but steady job the year around. Am married. Can do anything that comes in any tin shop. Address W. J. Mack, 106½ East Main Street, Saint Charles, Illinois. 11-31

**Situation Wanted**—A-1 plumber and heating man, also experienced in sheet metal work. Want position about March 15th. Can take complete charge of shop and construct any job in that line. Address—stating wages—C-69, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31.

**Situation Wanted**—By tinner, sheet metal and furnace man; also can do plumbing. Position must be steady the year around. State wages and particulars in first letter. Married. Can come at once and furnish best of references. Address Lee O. Bailey, Parkston, South Dakota. 11-31

## SITUATION WANTED

**Situation Wanted**—What have you to offer to a middle aged man who grew up with the tools and understands the heating business from A to Z. Gas, steam, hot water and warm air. Have a proven record of sales ability, special work and branch manager of Holland Furnace Company for eight years. No salesman's road job will be considered. Address C-70, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31

**Situation Wanted**—First class inside sheet metal worker. Must be steady job. Address—Sam Dennis, General Delivery, Huntington, West Va. 10-31.

**Situation Wanted**—Man with experience would like position in plumbing or tin shop. Would also like to communicate with someone knowing of good location for electrical shop. Address—C-62, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31.

**Situation Wanted**—By tinner and furnace man; small town in middle west states. Steady, reliable and a neat workman. Can do some plumbing and pump work. Would like position with hardware in connection. Steady position wanted more than large wages. Address C-72, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-31

**Situation Wanted**—Or will buy working interest by generally experienced sheet metal worker of good health and habits. First class shop man and pattern cutter, neat and accurate mechanic. Can take charge if required. Address, with particulars—C-65, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31.

**Situation Wanted**—Tinner and furnace setter with seven years' experience wishes location for year-around position. Missouri or Kansas preferred. Can come on two weeks' notice. Married. State wages and location. Address Front Apartment, 6309 Independence Avenue, Kansas City, Missouri. 11-31

**Situation Wanted**—By experienced sheet metal worker. First-class on warm air heating and general tin work. Foreman for years. Want to make a change. No large city. Address C-71, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31

**Situation Wanted**—As salesman and director of furnace installation. Have had ten years' experience. Can estimate, lay out work, sell, and handle men. Address C-73, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-31

**Situation Wanted**—A-1 sheet metal worker and expert draftsman is open for a position as pattern cutter or foreman of shop employing up to 50 men. Address—C-68, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31.

**Situation Wanted**—By first class templet and sheet metal pattern maker. Qualified in development of new work on up-to-date gas ranges. Address—C-64, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31.

**Situation Wanted**—By Furnace Salesman and heating engineer with executive ability. 15 years' experience. Have proven method for opening new accounts. Address—C-63, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-31.

## TINNERS' TOOLS

**For Sale**—One 36" Pexto Square shear has 2 sets of extensions for gauges long and short. This machine is as good as new. Used very little. My shop is small. Am using 30" shear rolls and folder now. Will sell at a bargain. Address—A. A. Roberts, 366 Central Avenue, Highland Park, Illinois. 10-31.

**For Sale**—One 8 foot double truss cornice brake, A-1 condition. A real buy. If interested write—The Barrett Co., Lakota, North Dakota. 10-31.



## SPECIAL NOTICES

**The Rate for Special Notices**  
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## SITUATION WANTED

Young man who has had 8 years' experience selling furnaces wholesale and retail, desires a position with manufacturer. Prefer Pennsylvania, New Jersey or New York territory. Past record shows that I can produce. Address W-10, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.

11-2t.

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furnace and sheet metal shop in middle west city of 100,000 population. Population has increased 50,000 since 1920. An established volume business on our furnaces. A rare opportunity. Reason for selling, the owner of this business is a widow. Address Lennox Furnace Co., Marshalltown, Iowa.

10-2t.

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Retail furnace business in a Pacific coast city can be purchased right. We have a profitable contract to distribute in Pacific coast territory for the manufacturer. Satisfactory reasons for selling. Right man who is entitled to credit can acquire this business with a reasonable down payment. Address, Pacific Furnace Dealer, in care of Lennox Furnace Company, Marshalltown, Iowa.

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## FURNACE SALESMEN

We have three good territories open for experienced furnace salesmen, interested in multiplied opportunities for sales, backed by complete re-sale co-operation.

We need a good man for the state of Nebraska, one for Missouri and another for the states of Kansas and Oklahoma.

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8-tf.

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Experience in furnace fittings not necessary, but acquaintance with trade would be very helpful. Give full details in first letter.

Write at once to W-8, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

## RETAIL FURNACE SALESMEN

If you can show good selling record of past furnace sales and think you can handle one of our Chicago branches get in touch with Mr. Calhoun. Many a man has the ability without the opportunity. If your past record is satisfactory we will give you that opportunity. Drawing account \$2600.00 a year, plus substantial bonus. Address

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711 South Wells Street  
Chicago, Illinois

11-1t.

## ADDITIONAL SALESMEN NEEDED

Several territories now open for experienced salesmen, who know the heating game. Our line includes everything in the heating line, for every kind of fuel. Write us in confidence, stating territory preference, and experience. Address L. J. Mueller Furnace Co., Milwaukee, Wis.

10-tf.



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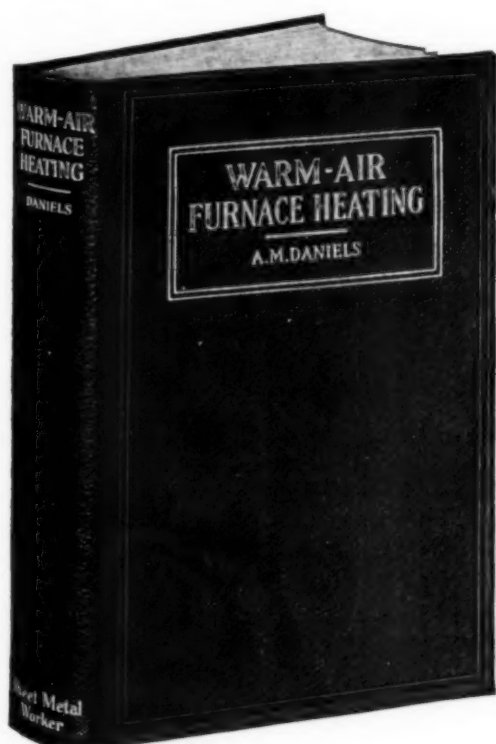
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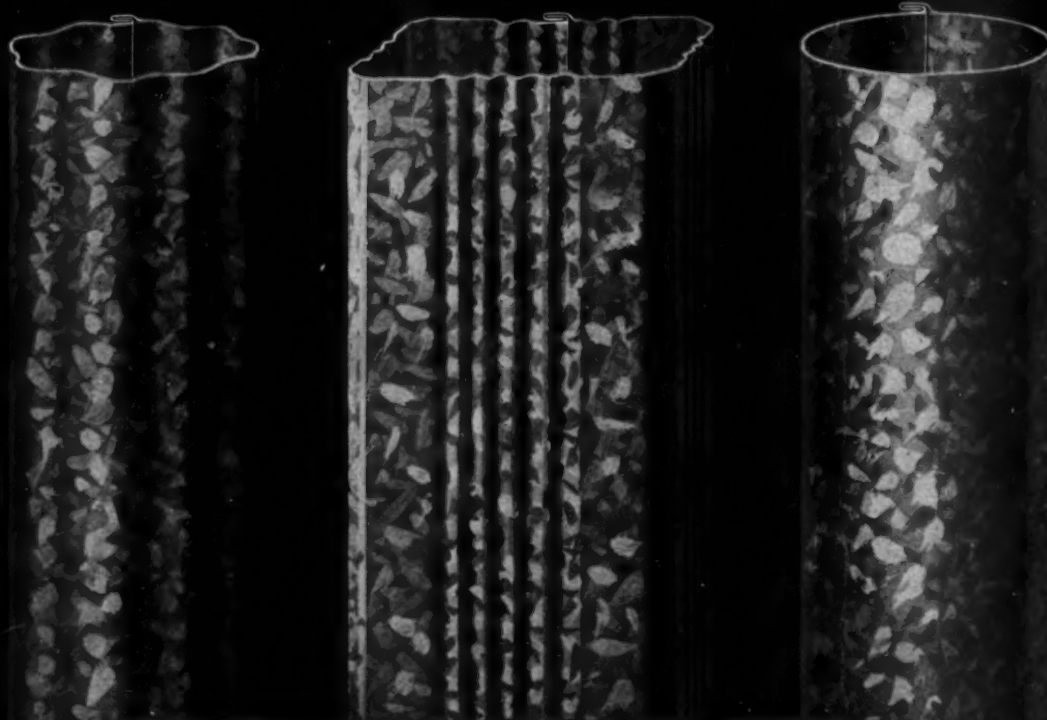
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